

BOX SEQ A

EXPRESS MAIL CERTIFICATE

I certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. § 1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231 on this date: September 23, 1999

Typed or Printed Name	Bonnie F. Wharton	Express Mail No.	EL 341 578 030 US
Signature	<i>Bonnie F. Wharton</i>	Date	September 23, 1999

**UTILITY  
PATENT APPLICATION  
TRANSMITTAL**

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Atty Docket No.	2300-1492
First Named Inventor	Williams, et al.
Title	Human Genes and Gene Expression Products
Express Mail No.	EL 341 578 030 US

**APPLICATION ELEMENTS**

See MPEP chapter 600 concerning utility patent application contents

Address to: Assistant Commissioner for Patents  
Box Patent Application  
Washington, D.C. 20231

1. ☐ Fee Transmittal Form  
(Submit an original, and a duplicate for fee processing)
2. ☒ Specification Total Pages 186  
(preferred arrangement set forth below)
  - Descriptive title of the invention
  - Cross Reference to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference to Microfiche Appendix
  - Background of the Invention
  - Brief Summary of the Invention
  - Brief Description of the Drawings (if filed)
  - Detailed Description
  - Claim(s)
  - Abstract of the Disclosure
3. ☐ Drawing(s) (35 USC 113) Total Sheets
4. ☒ Oath or Declaration Total Sheets 06
  - a. ☐ Newly executed (original or copy)
  - b. ☐ Copy from a prior application (37 CFR 1.63(d)  
(for continuation/divisional with Box 16 completed)
  - i. ☐ **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b)
  - c. ☒ Unsigned

5. ☐ Microfiche Computer Program (Appendix)
6. ☒ Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
  - a. ☒ Computer Readable Copy
  - b. ☒ Paper Copy (identical to computer copy)
  - c. ☒ Statement verifying identity of above copies

**ACCOMPANYING APPLICATION PARTS**

7. ☐ Assignment Papers (cover sheet & document(s))
8. ☐ 37 CFR 3.73(b) Statement ☐ Power of Attorney  
(when there is an assignee)
9. ☐ English Translation Document (if applicable)
10. ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations
11. ☐ Preliminary Amendment
12. ☒ Return Receipt Postcard (MPEP 503)  
(Should be specifically itemized)
13. ☐ Small Entity ☐ Statement filed in prior application  
Statement(s) application Status still proper and desired
14. ☐ Certified Copy of Priority Document(s)  
(if foreign priority is claimed)
15. ☐ Other:

16a. If a CONTINUING APPLICATION, check appropriate box and supply the requisite information:  
☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.       

16b. If a CONVERSION from a PROVISIONAL APPLICATION, supply the requisite information:  
Conversion of prior provisional application Nos. 60/102,180 filed September 28, 1998; 60/102,161, filed September 28, 1998; 60/102,380, filed September 29, 1998; 60/103,815, filed October 8, 1998; and 60/105,877, filed October 27, 1998.

**UTILITY PATENT APPLICATION TRANSMITTAL**  
(Only for new non-provisional applications under 37 CFR 1.53(b))

17. CORRESPONDENCE ADDRESS			
Individual Name	Robert P. Blackburn		
Firm Name	Chiron Corporation		
Address	4560 Horton Street		
City, State, Zip	Emeryville, California 94608		
Country	U.S.A.		
Telephone	(510) 923-2702	Facsimile	(510) 655-3542

SIGNATURE of Applicant or Assignee of Record	
Individual Name	Carol L. Francis
Registration No.	36,513
Signature	<i>Carol L. Francis</i>
Date	<i>Sept 23, 1999</i>

F:\DOCUMENT\2300\1492\Application 1.53(b) Transmittal.wpd



"Express Mail" Mailing Label No. EL 341 578 030 US  
Date of Deposit September 23, 1999

Atty. Docket No. 2300-1492

I certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. § 1.10 on the date indicated above and is addressed to Box Patent Application, Assistant Commissioner for Patents, Washington, D.C. 20231.

Signature: Bonnie F. Wharton  
Typed Name of Person Mailing Paper or Fee: Bonnie F. Wharton

## UTILITY APPLICATION

FOR

## HUMAN GENES AND GENE EXPRESSION PRODUCTS

Carol L. Francis  
Registration No. 36,513  
BOZICEVIC, FIELD & FRANCIS LLP  
285 Hamilton Avenue, Suite 200  
Palo Alto, CA 94301  
Telephone: (650) 327-3400  
Facsimile: (650) 327-3231

## HUMAN GENES AND GENE EXPRESSION PRODUCTS

### Cross-Reference to Related Applications

This application claims the benefit of U.S. provisional patent application serial no. 60/102,180, filed September 28, 1998; and U.S. provisional patent application serial no. 60/102,161, filed September 28, 1998; and U.S. provisional patent application serial no. 60/102,380, filed September 29, 1998; and U.S. provisional patent application serial no. 60/103,815, filed October 8, 1998; and U.S. provisional patent application serial no. 60/105,877 filed October 27, 1998; each of which applications are incorporated herein by reference.

### 10 Field of the Invention

The present invention relates to polynucleotides of human origin and the encoded gene products.

### Background of the Invention

Identification of novel polynucleotides, particularly those that encode an expressed gene product, is important in the advancement of drug discovery, diagnostic technologies, and the understanding of the progression and nature of complex diseases such as cancer. Identification of genes expressed in different cell types isolated from sources that differ in disease state or stage, developmental stage, exposure to various environmental factors, the tissue of origin, the species from which the tissue was isolated, and the like is key to identifying the genetic factors that are responsible for the phenotypes associated with these various differences.

This invention provides novel human polynucleotides, the polypeptides encoded by these polynucleotides, and the genes and proteins corresponding to these novel polynucleotides.

### Summary of the Invention

This invention relates to novel human polynucleotides and variants thereof, their encoded polypeptides and variants thereof, to genes corresponding to these polynucleotides and to proteins expressed by the genes. The invention also relates to diagnostics and therapeutics comprising such novel human polynucleotides, their corresponding genes or gene products, including probes, antisense nucleotides, and antibodies. The polynucleotides of the invention correspond to a polynucleotide comprising the sequence information of at least one of SEQ ID NOS:1-1079.

Various aspects and embodiments of the invention will be readily apparent to the ordinarily skilled artisan upon reading the description provided herein.

### Detailed Description of the Invention

The invention relates to polynucleotides comprising the disclosed nucleotide sequences, to full length cDNA, mRNA genomic sequences, and genes corresponding to these sequences and degenerate variants thereof, and to polypeptides encoded by the polynucleotides of the invention

and polypeptide variants. The following detailed description describes the polynucleotide compositions encompassed by the invention, methods for obtaining cDNA or genomic DNA encoding a full-length gene product, expression of these polynucleotides and genes, identification of structural motifs of the polynucleotides and genes, identification of the function of a gene product  
5 encoded by a gene corresponding to a polynucleotide of the invention, use of the provided polynucleotides as probes and in mapping and in tissue profiling, use of the corresponding polypeptides and other gene products to raise antibodies, and use of the polynucleotides and their encoded gene products for therapeutic and diagnostic purposes.

#### Polynucleotide Compositions

10 The scope of the invention with respect to polynucleotide compositions includes, but is not necessarily limited to, polynucleotides having a sequence set forth in any one of SEQ ID NOS:1-1079; polynucleotides obtained from the biological materials described herein or other biological sources (particularly human sources) by hybridization under stringent conditions (particularly conditions of high stringency); genes corresponding to the provided polynucleotides; variants of the  
15 provided polynucleotides and their corresponding genes, particularly those variants that retain a biological activity of the encoded gene product (*e.g.*, a biological activity ascribed to a gene product corresponding to the provided polynucleotides as a result of the assignment of the gene product to a protein family(ies) and/or identification of a functional domain present in the gene product). Other nucleic acid compositions contemplated by and within the scope of the present invention will be  
20 readily apparent to one of ordinary skill in the art when provided with the disclosure here. "Polynucleotide" and "nucleic acid" as used herein with reference to nucleic acids of the composition is not intended to be limiting as to the length or structure of the nucleic acid unless specifically indicted.

The invention features polynucleotides that are expressed in human tissue, specifically  
25 human colon, breast, and/or lung tissue. Novel nucleic acid compositions of the invention of particular interest comprise a sequence set forth in any one of SEQ ID NOS:1-1079 or an identifying sequence thereof. An "identifying sequence" is a contiguous sequence of residues at least about 10 nt to about 20 nt in length, usually at least about 50 nt to about 100 nt in length, that uniquely identifies a polynucleotide sequence, *e.g.*, exhibits less than 90%, usually less than about  
30 80% to about 85% sequence identity to any contiguous nucleotide sequence of more than about 20 nt. Thus, the subject novel nucleic acid compositions include full length cDNAs or mRNAs that encompass an identifying sequence of contiguous nucleotides from any one of SEQ ID NOS: 1-1079.

The polynucleotides of the invention also include polynucleotides having sequence  
35 similarity or sequence identity. Nucleic acids having sequence similarity are detected by

hybridization under low stringency conditions, for example, at 50°C and 10XSSC (0.9 M saline/0.09 M sodium citrate) and remain bound when subjected to washing at 55°C in 1XSSC. Sequence identity can be determined by hybridization under stringent conditions, for example, at 50°C or higher and 0.1XSSC (9 mM saline/0.9 mM sodium citrate). Hybridization methods and conditions are well known in the art, see, *e.g.*, USPN 5,707,829. Nucleic acids that are substantially identical to the provided polynucleotide sequences, *e.g.* allelic variants, genetically altered versions of the gene, *etc.*, bind to the provided polynucleotide sequences ( SEQ ID NOS:1-1079) under stringent hybridization conditions. By using probes, particularly labeled probes of DNA sequences, one can isolate homologous or related genes. The source of homologous genes can be any species, *e.g.* primate species, particularly human; rodents, such as rats and mice; canines, felines, bovines, ovines, equines, yeast, nematodes, *etc.*

Preferably, hybridization is performed using at least 15 contiguous nucleotides (nt) of at least one of SEQ ID NOS:1-1079. That is, when at least 15 contiguous nt of one of the disclosed SEQ ID NOS. is used as a probe, the probe will preferentially hybridize with a nucleic acid comprising the complementary sequence, allowing the identification and retrieval of the nucleic acids that uniquely hybridize to the selected probe. Probes from more than one SEQ ID NO. can hybridize with the same nucleic acid if the cDNA from which they were derived corresponds to one mRNA. Probes of more than 15 nt can be used, *e.g.*, probes of from about 18 nt to about 100 nt, but 15 nt represents sufficient sequence for unique identification.

The polynucleotides of the invention also include naturally occurring variants of the nucleotide sequences (*e.g.*, degenerate variants, allelic variants, *etc.*). Variants of the polynucleotides of the invention are identified by hybridization of putative variants with nucleotide sequences disclosed herein, preferably by hybridization under stringent conditions. For example, by using appropriate wash conditions, variants of the polynucleotides of the invention can be identified where the allelic variant exhibits at most about 25-30% base pair (bp) mismatches relative to the selected polynucleotide probe. In general, allelic variants contain 15-25% bp mismatches, and can contain as little as even 5-15%, or 2-5%, or 1-2% bp mismatches, as well as a single bp mismatch.

The invention also encompasses homologs corresponding to the polynucleotides of SEQ ID NOS:1-1079, where the source of homologous genes can be any mammalian species, *e.g.*, primate species, particularly human; rodents, such as rats; canines, felines, bovines, ovines, equines, yeast, nematodes, *etc.* Between mammalian species, *e.g.*, human and mouse, homologs generally have substantial sequence similarity, *e.g.*, at least 75% sequence identity, usually at least 90%, more usually at least 95% between nucleotide sequences. Sequence similarity is calculated based on a reference sequence, which may be a subset of a larger sequence, such as a conserved motif, coding region, flanking region, *etc.* A reference sequence will usually be at least about 18 contiguous nt

long, more usually at least about 30 nt long, and may extend to the complete sequence that is being compared. Algorithms for sequence analysis are known in the art, such as gapped BLAST, described in Altschul, et al. *Nucleic Acids Res.* (1997) 25:3389-3402.

In general, variants of the invention have a sequence identity greater than at least about 5 65%, preferably at least about 75%, more preferably at least about 85%, and can be greater than at least about 90% or more as determined by the Smith-Waterman homology search algorithm as implemented in MPSRCH program (Oxford Molecular). For the purposes of this invention, a preferred method of calculating percent identity is the Smith-Waterman algorithm, using the following. Global DNA sequence identity must be greater than 65% as determined by the Smith-  
10 Waterman homology search algorithm as implemented in MPSRCH program (Oxford Molecular) using an affine gap search with the following search parameters: gap open penalty, 12; and gap extension penalty, 1.

The subject nucleic acids can be cDNAs or genomic DNAs, as well as fragments thereof, particularly fragments that encode a biologically active gene product and/or are useful in the  
15 methods disclosed herein (e.g., in diagnosis, as a unique identifier of a differentially expressed gene of interest, etc.). The term "cDNA" as used herein is intended to include all nucleic acids that share the arrangement of sequence elements found in native mature mRNA species, where sequence elements are exons and 3' and 5' non-coding regions. Normally mRNA species have contiguous exons, with the intervening introns, when present, being removed by nuclear RNA splicing, to  
20 create a continuous open reading frame encoding a polypeptide of the invention.

A genomic sequence of interest comprises the nucleic acid present between the initiation codon and the stop codon, as defined in the listed sequences, including all of the introns that are normally present in a native chromosome. It can further include the 3' and 5' untranslated regions found in the mature mRNA. It can further include specific transcriptional and translational  
25 regulatory sequences, such as promoters, enhancers, etc., including about 1 kb, but possibly more, of flanking genomic DNA at either the 5' and 3' end of the transcribed region. The genomic DNA can be isolated as a fragment of 100 kbp or smaller; and substantially free of flanking chromosomal sequence. The genomic DNA flanking the coding region, either 3' and 5', or internal regulatory sequences as sometimes found in introns, contains sequences required for proper tissue, stage-  
30 specific, or disease-state specific expression.

The nucleic acid compositions of the subject invention can encode all or a part of the subject polypeptides. Double or single stranded fragments can be obtained from the DNA sequence by chemically synthesizing oligonucleotides in accordance with conventional methods, by restriction enzyme digestion, by PCR amplification, etc. Isolated polynucleotides and  
35 polynucleotide fragments of the invention comprise at least about 10, about 15, about 20, about 35,

about 50, about 100, about 150 to about 200, about 250 to about 300, or about 350 contiguous nt selected from the polynucleotide sequences as shown in SEQ ID NOS:1-1079. For the most part, fragments will be of at least 15 nt, usually at least 18 nt or 25 nt, and up to at least about 50 contiguous nt in length or more. In a preferred embodiment, the polynucleotide molecules comprise a contiguous sequence of at least 12 nt selected from the group consisting of the polynucleotides shown in SEQ ID NOS:1-1079.

Probes specific to the polynucleotides of the invention can be generated using the polynucleotide sequences disclosed in SEQ ID NOS:1-1079. The probes are preferably at least about a 12, 15, 16, 18, 20, 22, 24, or 25 nt fragment of a corresponding contiguous sequence of SEQ ID NOS:1-1079, and can be less than 2, 1, 0.5, 0.1, or 0.05 kb in length. The probes can be synthesized chemically or can be generated from longer polynucleotides using restriction enzymes. The probes can be labeled, for example, with a radioactive, biotinylated, or fluorescent tag. Preferably, probes are designed based upon an identifying sequence of a polynucleotide of one of SEQ ID NOS:1-1079. More preferably, probes are designed based on a contiguous sequence of one of the subject polynucleotides that remain unmasked following application of a masking program for masking low complexity (*e.g.*, XBLAST) to the sequence., *i.e.*, one would select an unmasked region, as indicated by the polynucleotides outside the poly-n stretches of the masked sequence produced by the masking program.

The polynucleotides of the subject invention are isolated and obtained in substantial purity, generally as other than an intact chromosome. Usually, the polynucleotides, either as DNA or RNA, will be obtained substantially free of other naturally-occurring nucleic acid sequences, generally being at least about 50%, usually at least about 90% pure and are typically "recombinant", *e.g.*, flanked by one or more nucleotides with which it is not normally associated on a naturally occurring chromosome.

The polynucleotides of the invention can be provided as a linear molecule or within a circular molecule, and can be provided within autonomously replicating molecules (vectors) or within molecules without replication sequences. Expression of the polynucleotides can be regulated by their own or by other regulatory sequences known in the art. The polynucleotides of the invention can be introduced into suitable host cells using a variety of techniques available in the art, such as transferrin polycation-mediated DNA transfer, transfection with naked or encapsulated nucleic acids, liposome-mediated DNA transfer, intracellular transportation of DNA-coated latex beads, protoplast fusion, viral infection, electroporation, gene gun, calcium phosphate-mediated transfection, and the like.

The subject nucleic acid compositions can be used to, for example, produce polypeptides, as probes for the detection of mRNA of the invention in biological samples (*e.g.*, extracts of human

cells) to generate additional copies of the polynucleotides, to generate ribozymes or antisense oligonucleotides, and as single stranded DNA probes or as triple-strand forming oligonucleotides. The probes described herein can be used to, for example, determine the presence or absence of the polynucleotide sequences as shown in SEQ ID NOS:1-1079 or variants thereof in a sample. These and other uses are described in more detail below.

Use of Polynucleotides to Obtain Full-Length cDNA, Gene, and Promoter Region

Full-length cDNA molecules comprising the disclosed polynucleotides are obtained as follows. A polynucleotide having a sequence of one of SEQ ID NOS:1-1079, or a portion thereof comprising at least 12, 15, 18, or 20 nt, is used as a hybridization probe to detect hybridizing members of a cDNA library using probe design methods, cloning methods, and clone selection techniques such as those described in USPN 5,654,173. Libraries of cDNA are made from selected tissues, such as normal or tumor tissue, or from tissues of a mammal treated with, for example, a pharmaceutical agent. Preferably, the tissue is the same as the tissue from which the polynucleotides of the invention were isolated, as both the polynucleotides described herein and the cDNA represent expressed genes. Most preferably, the cDNA library is made from the biological material described herein in the Examples. The choice of cell type for library construction can be made after the identity of the protein encoded by the gene corresponding to the polynucleotide of the invention is known. This will indicate which tissue and cell types are likely to express the related gene, and thus represent a suitable source for the mRNA for generating the cDNA. Where the provided polynucleotides are isolated from cDNA libraries, the libraries are prepared from mRNA of human colon cells, more preferably, human colon cancer cells, even more preferably, from a highly metastatic colon cell, Km12L4-A.

Techniques for producing and probing nucleic acid sequence libraries are described, for example, in Sambrook *et al.*, *Molecular Cloning: A Laboratory Manual, 2nd Ed.*, (1989) Cold Spring Harbor Press, Cold Spring Harbor, NY. The cDNA can be prepared by using primers based on sequence from SEQ ID NOS:1-1079. In one embodiment, the cDNA library can be made from only poly-adenylated mRNA. Thus, poly-T primers can be used to prepare cDNA from the mRNA.

Members of the library that are larger than the provided polynucleotides, and preferably that encompass the complete coding sequence of the native message, are obtained. In order to confirm that the entire cDNA has been obtained, RNA protection experiments are performed as follows. Hybridization of a full-length cDNA to an mRNA will protect the RNA from RNase degradation. If the cDNA is not full length, then the portions of the mRNA that are not hybridized will be subject to RNase degradation. This is assayed, as is known in the art, by changes in electrophoretic mobility on polyacrylamide gels, or by detection of released monoribonucleotides. Sambrook *et al.*, *Molecular Cloning: A Laboratory Manual, 2nd Ed.*, (1989) Cold Spring Harbor Press, Cold Spring

Harbor, NY. In order to obtain additional sequences 5' to the end of a partial cDNA, 5' RACE (*PCR Protocols: A Guide to Methods and Applications*, (1990) Academic Press, Inc.) can be performed.

Genomic DNA is isolated using the provided polynucleotides in a manner similar to the isolation of full-length cDNAs. Briefly, the provided polynucleotides, or portions thereof, are used as probes to libraries of genomic DNA. Preferably, the library is obtained from the cell type that was used to generate the polynucleotides of the invention, but this is not essential. Most preferably, the genomic DNA is obtained from the biological material described herein in the Examples. Such libraries can be in vectors suitable for carrying large segments of a genome, such as P1 or YAC, as described in detail in Sambrook *et al.*, 9.4-9.30. In addition, genomic sequences can be isolated from human BAC libraries, which are commercially available from Research Genetics, Inc., Huntsville, Alabama, USA, for example. In order to obtain additional 5' or 3' sequences, chromosome walking is performed, as described in Sambrook *et al.*, such that adjacent and overlapping fragments of genomic DNA are isolated. These are mapped and pieced together, as is known in the art, using restriction digestion enzymes and DNA ligase.

Using the polynucleotide sequences of the invention, corresponding full-length genes can be isolated using both classical and PCR methods to construct and probe cDNA libraries. Using either method, Northern blots, preferably, are performed on a number of cell types to determine which cell lines express the gene of interest at the highest level. Classical methods of constructing cDNA libraries are taught in Sambrook *et al.*, *supra*. With these methods, cDNA can be produced from mRNA and inserted into viral or expression vectors. Typically, libraries of mRNA comprising poly(A) tails can be produced with poly(T) primers. Similarly, cDNA libraries can be produced using the instant sequences as primers.

PCR methods are used to amplify the members of a cDNA library that comprise the desired insert. In this case, the desired insert will contain sequence from the full length cDNA that corresponds to the instant polynucleotides. Such PCR methods include gene trapping and RACE methods. Gene trapping entails inserting a member of a cDNA library into a vector. The vector then is denatured to produce single stranded molecules. Next, a substrate-bound probe, such as a biotinylated oligo, is used to trap cDNA inserts of interest. Biotinylated probes can be linked to an avidin-bound solid substrate. PCR methods can be used to amplify the trapped cDNA. To trap sequences corresponding to the full length genes, the labeled probe sequence is based on the polynucleotide sequences of the invention. Random primers or primers specific to the library vector can be used to amplify the trapped cDNA. Such gene trapping techniques are described in Gruber *et al.*, WO 95/04745 and Gruber *et al.*, USPN 5,500,356. Kits are commercially available to perform gene trapping experiments from, for example, Life Technologies, Gaithersburg, Maryland, USA.



“Rapid amplification of cDNA ends,” or RACE, is a PCR method of amplifying cDNAs from a number of different RNAs. The cDNAs are ligated to an oligonucleotide linker, and amplified by PCR using two primers. One primer is based on sequence from the instant polynucleotides, for which full length sequence is desired, and a second primer comprises sequence that hybridizes to the oligonucleotide linker to amplify the cDNA. A description of this methods is reported in WO 97/19110. In preferred embodiments of RACE, a common primer is designed to anneal to an arbitrary adaptor sequence ligated to cDNA ends (Apte and Siebert, *Biotechniques* (1993) 15:890-893; Edwards *et al.*, *Nuc. Acids Res.* (1991) 19:5227-5232). When a single gene-specific RACE primer is paired with the common primer, preferential amplification of sequences between the single gene specific primer and the common primer occurs. Commercial cDNA pools modified for use in RACE are available.

Another PCR-based method generates full-length cDNA library with anchored ends without needing specific knowledge of the cDNA sequence. The method uses lock-docking primers (I-VI), where one primer, poly TV (I-III) locks over the polyA tail of eukaryotic mRNA producing first strand synthesis and a second primer, polyGH (IV-VI) locks onto the polyC tail added by terminal deoxynucleotidyl transferase (TdT)(see, e.g., WO 96/40998).

The promoter region of a gene generally is located 5' to the initiation site for RNA polymerase II. Hundreds of promoter regions contain the “TATA” box, a sequence such as TATTA or TATAA, which is sensitive to mutations. The promoter region can be obtained by performing 5' RACE using a primer from the coding region of the gene. Alternatively, the cDNA can be used as a probe for the genomic sequence, and the region 5' to the coding region is identified by “walking up.” If the gene is highly expressed or differentially expressed, the promoter from the gene can be of use in a regulatory construct for a heterologous gene.

Once the full-length cDNA or gene is obtained, DNA encoding variants can be prepared by site-directed mutagenesis, described in detail in Sambrook *et al.*, 15.3-15.63. The choice of codon or nucleotide to be replaced can be based on disclosure herein on optional changes in amino acids to achieve altered protein structure and/or function.

As an alternative method to obtaining DNA or RNA from a biological material, nucleic acid comprising nucleotides having the sequence of one or more polynucleotides of the invention can be synthesized. Thus, the invention encompasses nucleic acid molecules ranging in length from 15 nt (corresponding to at least 15 contiguous nt of one of SEQ ID NOS:1-1079) up to a maximum length suitable for one or more biological manipulations, including replication and expression, of the nucleic acid molecule. The invention includes but is not limited to (a) nucleic acid having the size of a full gene, and comprising at least one of SEQ ID NOS:1-1079; (b) the nucleic acid of (a) also comprising at least one additional gene, operably linked to permit expression of a fusion

protein; (c) an expression vector comprising (a) or (b); (d) a plasmid comprising (a) or (b) ; and (e) a recombinant viral particle comprising (a) or (b). Once provided with the polynucleotides disclosed herein, construction or preparation of (a) - (e) are well within the skill in the art.

The sequence of a nucleic acid comprising at least 15 contiguous nt of at least any one of SEQ ID NOS:1-1079, preferably the entire sequence of at least any one of SEQ ID NOS:1-1079, is not limited and can be any sequence of A, T, G, and/or C (for DNA) and A, U, G, and/or C (for RNA) or modified bases thereof, including inosine and pseudouridine. The choice of sequence will depend on the desired function and can be dictated by coding regions desired, the intron-like regions desired, and the regulatory regions desired. Where the entire sequence of any one of SEQ ID NOS:1-1079 is within the nucleic acid, the nucleic acid obtained is referred to herein as a polynucleotide comprising the sequence of any one of SEQ ID NOS:1-1079.

Expression of Polypeptide Encoded by Full-Length cDNA or Full-Length Gene

The provided polynucleotides (e.g., a polynucleotide having a sequence of one of SEQ ID NOS:1-1079), the corresponding cDNA, or the full-length gene is used to express a partial or complete gene product. Constructs of polynucleotides having sequences of SEQ ID NOS:1-1079 can also be generated synthetically. Alternatively, single-step assembly of a gene and entire plasmid from large numbers of oligodeoxyribonucleotides is described by, e.g., Stemmer *et al.*, *Gene (Amsterdam)* (1995) 164(1):49-53. In this method, assembly PCR (the synthesis of long DNA sequences from large numbers of oligodeoxyribonucleotides (oligos)) is described. The method is derived from DNA shuffling (Stemmer, *Nature* (1994) 370:389-391), and does not rely on DNA ligase, but instead relies on DNA polymerase to build increasingly longer DNA fragments during the assembly process.

Appropriate polynucleotide constructs are purified using standard recombinant DNA techniques as described in, for example, Sambrook *et al.*, *Molecular Cloning: A Laboratory Manual, 2nd Ed.*, (1989) Cold Spring Harbor Press, Cold Spring Harbor, NY, and under current regulations described in United States Dept. of HHS, National Institute of Health (NIH) Guidelines for Recombinant DNA Research. The gene product encoded by a polynucleotide of the invention is expressed in any expression system, including, for example, bacterial, yeast, insect, amphibian and mammalian systems. Vectors, host cells and methods for obtaining expression in same are well known in the art. Suitable vectors and host cells are described in USPN 5,654,173.

Polynucleotide molecules comprising a polynucleotide sequence provided herein are generally propagated by placing the molecule in a vector. Viral and non-viral vectors are used, including plasmids. The choice of plasmid will depend on the type of cell in which propagation is desired and the purpose of propagation. Certain vectors are useful for amplifying and making large amounts of the desired DNA sequence. Other vectors are suitable for expression in cells in culture.

Still other vectors are suitable for transfer and expression in cells in a whole animal or person. The choice of appropriate vector is well within the skill of the art. Many such vectors are available commercially. Methods for preparation of vectors comprising a desired sequence are well known in the art.

5           The polynucleotides set forth in SEQ ID NOS:1-1079 or their corresponding full-length polynucleotides are linked to regulatory sequences as appropriate to obtain the desired expression properties. These can include promoters (attached either at the 5' end of the sense strand or at the 3' end of the antisense strand), enhancers, terminators, operators, repressors, and inducers. The promoters can be regulated or constitutive. In some situations it may be desirable to use  
10       conditionally active promoters, such as tissue-specific or developmental stage-specific promoters. These are linked to the desired nucleotide sequence using the techniques described above for linkage to vectors. Any techniques known in the art can be used.

          When any of the above host cells, or other appropriate host cells or organisms, are used to replicate and/or express the polynucleotides or nucleic acids of the invention, the resulting replicated  
15       nucleic acid, RNA, expressed protein or polypeptide, is within the scope of the invention as a product of the host cell or organism. The product is recovered by any appropriate means known in the art.

          Once the gene corresponding to a selected polynucleotide is identified, its expression can be regulated in the cell to which the gene is native. For example, an endogenous gene of a cell can be  
20       regulated by an exogenous regulatory sequence as disclosed in USPN 5,641,670.

#### Identification of Functional and Structural Motifs of Novel Genes Screening Against Publicly Available Databases

          Translations of the nucleotide sequence of the provided polynucleotides, cDNAs or full  
25       genes can be aligned with individual known sequences. Similarity with individual sequences can be used to determine the activity of the polypeptides encoded by the polynucleotides of the invention. Also, sequences exhibiting similarity with more than one individual sequence can exhibit activities that are characteristic of either or both individual sequences.

          The full length sequences and fragments of the polynucleotide sequences of the nearest  
30       neighbors can be used as probes and primers to identify and isolate the full length sequence corresponding to provided polynucleotides. The nearest neighbors can indicate a tissue or cell type to be used to construct a library for the full-length sequences corresponding to the provided polynucleotides.

          Typically, a selected polynucleotide is translated in all six frames to determine the best  
35       alignment with the individual sequences. The sequences disclosed herein in the Sequence Listing

are in a 5' to 3' orientation and translation in three frames can be sufficient (with a few specific exceptions as described in the Examples). These amino acid sequences are referred to, generally, as query sequences, which will be aligned with the individual sequences. Databases with individual sequences are described in "Computer Methods for Macromolecular Sequence Analysis" *Methods in*  
5 *Enzymology* (1996) 266, Doolittle, Academic Press, Inc., a division of Harcourt Brace & Co., San Diego, California, USA. Databases include GenBank, EMBL, and DNA Database of Japan (DDBJ).

Query and individual sequences can be aligned using the methods and computer programs described above, and include BLAST 2.0, available over the world wide web at

10 <http://www.ncbi.nlm.nih.gov/BLAST/>. See also Altschul, et al. *Nucleic Acids Res.* (1997) 25:3389-3402. Another alignment algorithm is Fasta, available in the Genetics Computing Group (GCG) package, Madison, Wisconsin, USA, a wholly owned subsidiary of Oxford Molecular Group, Inc. Other techniques for alignment are described in Doolittle, *supra*. Preferably, an alignment program that permits gaps in the sequence is utilized to align the sequences. The Smith-Waterman is one  
15 type of algorithm that permits gaps in sequence alignments. See *Meth. Mol. Biol.* (1997) 70: 173-187. Also, the GAP program using the Needleman and Wunsch alignment method can be utilized to align sequences. An alternative search strategy uses MPSRCH software, which runs on a MASPAR computer. MPSRCH uses a Smith-Waterman algorithm to score sequences on a massively parallel computer. This approach improves ability to identify sequences that are distantly related matches,  
20 and is especially tolerant of small gaps and nucleotide sequence errors. Amino acid sequences encoded by the provided polynucleotides can be used to search both protein and DNA databases. Incorporated herein by reference are all sequences that have been made public as of the filing date of this application by any of the DNA or protein sequence databases, including the patent databases (e.g., GeneSeq). Also incorporated by reference are those sequences that have been submitted to  
25 these databases as of the filing date of the present application but not made public until after the filing date of the present application.

Results of individual and query sequence alignments can be divided into three categories: high similarity, weak similarity, and no similarity. Individual alignment results ranging from high similarity to weak similarity provide a basis for determining polypeptide activity and/or structure.  
30 Parameters for categorizing individual results include: percentage of the alignment region length where the strongest alignment is found, percent sequence identity, and p value. The percentage of the alignment region length is calculated by counting the number of residues of the individual sequence found in the region of strongest alignment, e.g., contiguous region of the individual sequence that contains the greatest number of residues that are identical to the residues of the  
35 corresponding region of the aligned query sequence. This number is divided by the total residue

length of the query sequence to calculate a percentage. For example, a query sequence of 20 amino acid residues might be aligned with a 20 amino acid region of an individual sequence. The individual sequence might be identical to amino acid residues 5, 9-15, and 17-19 of the query sequence. The region of strongest alignment is thus the region stretching from residue 9-19, an 11 amino acid stretch. The percentage of the alignment region length is: 11 (length of the region of strongest alignment) divided by (query sequence length) 20 or 55%.

Percent sequence identity is calculated by counting the number of amino acid matches between the query and individual sequence and dividing total number of matches by the number of residues of the individual sequences found in the region of strongest alignment. Thus, the percent identity in the example above would be 10 matches divided by 11 amino acids, or approximately, 90.9%.

P value is the probability that the alignment was produced by chance. For a single alignment, the p value can be calculated according to Karlin *et al.*, *Proc. Natl. Acad. Sci.* (1990) 87:2264 and Karlin *et al.*, *Proc. Natl. Acad. Sci.* (1993) 90. The p value of multiple alignments using the same query sequence can be calculated using an heuristic approach described in Altschul *et al.*, *Nat. Genet.* (1994) 6:119. Alignment programs such as BLAST program can calculate the p value. See also Altschul *et al.*, *Nucleic Acids Res.* (1997) 25:3389-3402.

Another factor to consider for determining identity or similarity is the location of the similarity or identity. Strong local alignment can indicate similarity even if the length of alignment is short. Sequence identity scattered throughout the length of the query sequence also can indicate a similarity between the query and profile sequences. The boundaries of the region where the sequences align can be determined according to Doolittle, *supra*; BLAST 2.0 (see, *e.g.*, Altschul, *et al. Nucleic Acids Res.* (1997) 25:3389-3402) or FAST programs; or by determining the area where sequence identity is highest.

High Similarity. In general, in alignment results considered to be of high similarity, the percent of the alignment region length is typically at least about 55% of total length query sequence; more typically, at least about 58%; even more typically; at least about 60% of the total residue length of the query sequence. Usually, percent length of the alignment region can be as much as about 62%; more usually, as much as about 64%; even more usually, as much as about 66%. Further, for high similarity, the region of alignment, typically, exhibits at least about 75% of sequence identity; more typically, at least about 78%; even more typically; at least about 80% sequence identity. Usually, percent sequence identity can be as much as about 82%; more usually, as much as about 84%; even more usually, as much as about 86%.

The p value is used in conjunction with these methods. If high similarity is found, the query sequence is considered to have high similarity with a profile sequence when the p value is less than

or equal to about  $10^{-2}$ ; more usually; less than or equal to about  $10^{-3}$ ; even more usually; less than or equal to about  $10^{-4}$ . More typically, the p value is no more than about  $10^{-5}$ ; more typically; no more than or equal to about  $10^{-10}$ ; even more typically; no more than or equal to about  $10^{-15}$  for the query sequence to be considered high similarity.

5        Weak Similarity. In general, where alignment results considered to be of weak similarity, there is no minimum percent length of the alignment region nor minimum length of alignment. A better showing of weak similarity is considered when the region of alignment is, typically, at least about 15 amino acid residues in length; more typically, at least about 20; even more typically; at least about 25 amino acid residues in length. Usually, length of the alignment region can be as  
10    much as about 30 amino acid residues; more usually, as much as about 40; even more usually, as much as about 60 amino acid residues. Further, for weak similarity, the region of alignment, typically, exhibits at least about 35% of sequence identity; more typically, at least about 40%; even more typically; at least about 45% sequence identity. Usually, percent sequence identity can be as much as about 50%; more usually, as much as about 55%; even more usually, as much as about  
15    60%.

      If low similarity is found, the query sequence is considered to have weak similarity with a profile sequence when the p value is usually less than or equal to about  $10^{-2}$ ; more usually; less than or equal to about  $10^{-3}$ ; even more usually; less than or equal to about  $10^{-4}$ . More typically, the p value is no more than about  $10^{-5}$ ; more usually; no more than or equal to about  $10^{-10}$ ; even more  
20    usually; no more than or equal to about  $10^{-15}$  for the query sequence to be considered weak similarity.

Similarity Determined by Sequence Identity Alone. Sequence identity alone can be used to determine similarity of a query sequence to an individual sequence and can indicate the activity of the sequence. Such an alignment, preferably, permits gaps to align sequences. Typically, the query  
25    sequence is related to the profile sequence if the sequence identity over the entire query sequence is at least about 15%; more typically, at least about 20%; even more typically, at least about 25%; even more typically, at least about 50%. Sequence identity alone as a measure of similarity is most useful when the query sequence is usually, at least 80 residues in length; more usually, 90 residues; even more usually, at least 95 amino acid residues in length. More typically, similarity can be concluded  
30    based on sequence identity alone when the query sequence is preferably 100 residues in length; more preferably, 120 residues in length; even more preferably, 150 amino acid residues in length.

Alignments with Profile and Multiple Aligned Sequences. Translations of the provided polynucleotides can be aligned with amino acid profiles that define either protein families or common motifs. Also, translations of the provided polynucleotides can be aligned to multiple sequence alignments (MSA) comprising the polypeptide sequences of members of protein families or motifs. Similarity or identity with profile sequences or MSAs can be used to determine the activity of the gene products (*e.g.*, polypeptides) encoded by the provided polynucleotides or corresponding cDNA or genes. For example, sequences that show an identity or similarity with a chemokine profile or MSA can exhibit chemokine activities.

Profiles can be designed manually by (1) creating an MSA, which is an alignment of the amino acid sequence of members that belong to the family and (2) constructing a statistical representation of the alignment. Such methods are described, for example, in Birney *et al.*, *Nucl. Acid Res.* (1996) 24(14): 2730-2739. MSAs of some protein families and motifs are publicly available. For example, <http://genome.wustl.edu/Pfam/> includes MSAs of 547 different families and motifs. These MSAs are described also in Sonnhammer *et al.*, *Proteins* (1997) 28: 405-420. Other sources over the world wide web include the site at <http://www.embl-heidelberg.de/argos/ali/ali.html>; alternatively, a message can be sent to [ALI@EMBL-HEIDELBERG.DE](mailto:ALI@EMBL-HEIDELBERG.DE) for the information. A brief description of these MSAs is reported in Pascarella *et al.*, *Prot. Eng.* (1996) 9(3):249-251. Techniques for building profiles from MSAs are described in Sonnhammer *et al.*, *supra*; Birney *et al.*, *supra*; and "Computer Methods for Macromolecular Sequence Analysis," *Methods in Enzymology* (1996) 266, Doolittle, Academic Press, Inc., San Diego, California, USA.

Similarity between a query sequence and a protein family or motif can be determined by (a) comparing the query sequence against the profile and/or (b) aligning the query sequence with the members of the family or motif. Typically, a program such as Searchwise is used to compare the query sequence to the statistical representation of the multiple alignment, also known as a profile (see Birney *et al.*, *supra*). Other techniques to compare the sequence and profile are described in Sonnhammer *et al.*, *supra* and Doolittle, *supra*.

Next, methods described by Feng *et al.*, *J. Mol. Evol.* (1987) 25:351 and Higgins *et al.*, *CABIOS* (1989) 5:151 can be used to align the query sequence with the members of a family or motif, also known as a MSA. Sequence alignments can be generated using any of a variety of software tools. Examples include PileUp, which creates a multiple sequence alignment, and is described in Feng *et al.*, *J. Mol. Evol.* (1987) 25:351. Another method, GAP, uses the alignment method of Needleman *et al.*, *J. Mol. Biol.* (1970) 48:443. GAP is best suited for global alignment of sequences. A third method, BestFit, functions by inserting gaps to maximize the number of matches using the local homology algorithm of Smith *et al.*, *Adv. Appl. Math.* (1981) 2:482. In general, the following factors are used to determine if a similarity between a query sequence and a profile or

MSA exists: (1) number of conserved residues found in the query sequence, (2) percentage of conserved residues found in the query sequence, (3) number of frameshifts, and (4) spacing between conserved residues.

Some alignment programs that both translate and align sequences can make any number of frameshifts when translating the nucleotide sequence to produce the best alignment. The fewer frameshifts needed to produce an alignment, the stronger the similarity or identity between the query and profile or MSAs. For example, a weak similarity resulting from no frameshifts can be a better indication of activity or structure of a query sequence, than a strong similarity resulting from two frameshifts. Preferably, three or fewer frameshifts are found in an alignment; more preferably two or fewer frameshifts; even more preferably, one or fewer frameshifts; even more preferably, no frameshifts are found in an alignment of query and profile or MSAs.

Conserved residues are those amino acids found at a particular position in all or some of the family or motif members. Alternatively, a position is considered conserved if only a certain class of amino acids is found in a particular position in all or some of the family members. For example, the N-terminal position can contain a positively charged amino acid, such as lysine, arginine, or histidine.

Typically, a residue of a polypeptide is conserved when a class of amino acids or a single amino acid is found at a particular position in at least about 40% of all class members; more typically, at least about 50%; even more typically, at least about 60% of the members. Usually, a residue is conserved when a class or single amino acid is found in at least about 70% of the members of a family or motif; more usually, at least about 80%; even more usually, at least about 90%; even more usually, at least about 95%.

A residue is considered conserved when three unrelated amino acids are found at a particular position in the some or all of the members; more usually, two unrelated amino acids. These residues are conserved when the unrelated amino acids are found at particular positions in at least about 40% of all class member; more typically, at least about 50%; even more typically, at least about 60% of the members. Usually, a residue is conserved when a class or single amino acid is found in at least about 70% of the members of a family or motif; more usually, at least about 80%; even more usually, at least about 90%; even more usually, at least about 95%.

A query sequence has similarity to a profile or MSA when the query sequence comprises at least about 25% of the conserved residues of the profile or MSA; more usually, at least about 30%; even more usually; at least about 40%. Typically, the query sequence has a stronger similarity to a profile sequence or MSA when the query sequence comprises at least about 45% of the conserved residues of the profile or MSA; more typically, at least about 50%; even more typically; at least about 55%.



#### Identification of Secreted & Membrane-Bound Polypeptides

Both secreted and membrane-bound polypeptides of the present invention are of particular interest. For example, levels of secreted polypeptides can be assayed in body fluids that are convenient, such as blood, plasma, serum, and other body fluids such as urine, prostatic fluid and semen. Membrane-bound polypeptides are useful for constructing vaccine antigens or inducing an immune response. Such antigens would comprise all or part of the extracellular region of the membrane-bound polypeptides. Because both secreted and membrane-bound polypeptides comprise a fragment of contiguous hydrophobic amino acids, hydrophobicity predicting algorithms can be used to identify such polypeptides.

A signal sequence is usually encoded by both secreted and membrane-bound polypeptide genes to direct a polypeptide to the surface of the cell. The signal sequence usually comprises a stretch of hydrophobic residues. Such signal sequences can fold into helical structures. Membrane-bound polypeptides typically comprise at least one transmembrane region that possesses a stretch of hydrophobic amino acids that can transverse the membrane. Some transmembrane regions also exhibit a helical structure. Hydrophobic fragments within a polypeptide can be identified by using computer algorithms. Such algorithms include Hopp & Woods, *Proc. Natl. Acad. Sci. USA* (1981) 78:3824-3828; Kyte & Doolittle, *J. Mol. Biol.* (1982) 157: 105-132; and RAOAR algorithm, Degli Esposti *et al.*, *Eur. J. Biochem.* (1990) 190: 207-219.

Another method of identifying secreted and membrane-bound polypeptides is to translate the polynucleotides of the invention in all six frames and determine if at least 8 contiguous hydrophobic amino acids are present. Those translated polypeptides with at least 8; more typically, 10; even more typically, 12 contiguous hydrophobic amino acids are considered to be either a putative secreted or membrane bound polypeptide. Hydrophobic amino acids include alanine, glycine, histidine, isoleucine, leucine, lysine, methionine, phenylalanine, proline, threonine, tryptophan, tyrosine, and valine

#### Identification of the Function of an Expression Product of a Full-Length Gene

Ribozymes, antisense constructs, and dominant negative mutants can be used to determine function of the expression product of a gene corresponding to a polynucleotide provided herein. These methods and compositions are particularly useful where the provided novel polynucleotide exhibits no significant or substantial homology to a sequence encoding a gene of known function. Antisense molecules and ribozymes can be constructed from synthetic polynucleotides. Typically, the phosphoramidite method of oligonucleotide synthesis is used. See Beaucage *et al.*, *Tet. Lett.* (1981) 22:1859 and USPN 4,668,777. Automated devices for synthesis are available to create oligonucleotides using this chemistry. Examples of such devices include Biosearch 8600, Models 392 and 394 by Applied Biosystems, a division of Perkin-Elmer Corp., Foster City, California,

USA; and Expedite by Perceptive Biosystems, Framingham, Massachusetts, USA. Synthetic RNA, phosphate analog oligonucleotides, and chemically derivatized oligonucleotides can also be produced, and can be covalently attached to other molecules. RNA oligonucleotides can be synthesized, for example, using RNA phosphoramidites. This method can be performed on an  
5 automated synthesizer, such as Applied Biosystems, Models 392 and 394, Foster City, California, USA.

Phosphorothioate oligonucleotides can also be synthesized for antisense construction. A sulfurizing reagent, such as tetraethylthiuram disulfide (TETD) in acetonitrile can be used to convert the internucleotide cyanoethyl phosphite to the phosphorothioate triester within 15 minutes at room  
10 temperature. TETD replaces the iodine reagent, while all other reagents used for standard phosphoramidite chemistry remain the same. Such a synthesis method can be automated using Models 392 and 394 by Applied Biosystems, for example.

Oligonucleotides of up to 200 nt can be synthesized, more typically, 100 nt, more typically 50 nt; even more typically 30 to 40 nt. These synthetic fragments can be annealed and ligated  
15 together to construct larger fragments. See, for example, Sambrook *et al.*, *supra*. Trans-cleaving catalytic RNAs (ribozymes) are RNA molecules possessing endoribonuclease activity. Ribozymes are specifically designed for a particular target, and the target message must contain a specific nucleotide sequence. They are engineered to cleave any RNA species site-specifically in the background of cellular RNA. The cleavage event renders the mRNA unstable and prevents protein  
20 expression. Importantly, ribozymes can be used to inhibit expression of a gene of unknown function for the purpose of determining its function in an in vitro or in vivo context, by detecting the phenotypic effect. One commonly used ribozyme motif is the hammerhead, for which the substrate sequence requirements are minimal. Design of the hammerhead ribozyme, as well as therapeutic uses of ribozymes, are disclosed in Usman *et al.*, *Current Opin. Struct. Biol.* (1996) 6:527. Methods  
25 for production of ribozymes, including hairpin structure ribozyme fragments, methods of increasing ribozyme specificity, and the like are known in the art.

The hybridizing region of the ribozyme can be modified or can be prepared as a branched structure as described in Horn and Urdea, *Nucleic Acids Res.* (1989) 17:6959. The basic structure of the ribozymes can also be chemically altered in ways familiar to those skilled in the art, and  
30 chemically synthesized ribozymes can be administered as synthetic oligonucleotide derivatives modified by monomeric units. In a therapeutic context, liposome mediated delivery of ribozymes improves cellular uptake, as described in Birikh *et al.*, *Eur. J. Biochem.* (1997) 245:1.

Antisense nucleic acids are designed to specifically bind to RNA, resulting in the formation of RNA-DNA or RNA-RNA hybrids, with an arrest of DNA replication, reverse transcription or  
35 messenger RNA translation. Antisense polynucleotides based on a selected polynucleotide

sequence can interfere with expression of the corresponding gene. Antisense polynucleotides are typically generated within the cell by expression from antisense constructs that contain the antisense strand as the transcribed strand. Antisense polynucleotides based on the disclosed polynucleotides will bind and/or interfere with the translation of mRNA comprising a sequence complementary to the antisense polynucleotide. The expression products of control cells and cells treated with the antisense construct are compared to detect the protein product of the gene corresponding to the polynucleotide upon which the antisense construct is based. The protein is isolated and identified using routine biochemical methods.

Given the extensive background literature and clinical experience in antisense therapy, one skilled in the art can use selected polynucleotides of the invention as additional potential therapeutics. The choice of polynucleotide can be narrowed by first testing them for binding to "hot spot" regions of the genome of cancerous cells. If a polynucleotide is identified as binding to a "hot spot", testing the polynucleotide as an antisense compound in the corresponding cancer cells is warranted.

As an alternative method for identifying function of the gene corresponding to a polynucleotide disclosed herein, dominant negative mutations are readily generated for corresponding proteins that are active as homomultimers. A mutant polypeptide will interact with wild-type polypeptides (made from the other allele) and form a non-functional multimer. Thus, a mutation is in a substrate-binding domain, a catalytic domain, or a cellular localization domain. Preferably, the mutant polypeptide will be overproduced. Point mutations are made that have such an effect. In addition, fusion of different polypeptides of various lengths to the terminus of a protein can yield dominant negative mutants. General strategies are available for making dominant negative mutants (see, e.g., Herskowitz, *Nature* (1987) 329:219). Such techniques can be used to create loss of function mutations, which are useful for determining protein function.

#### Polypeptides and Variants Thereof

The polypeptides of the invention include those encoded by the disclosed polynucleotides, as well as nucleic acids that, by virtue of the degeneracy of the genetic code, are not identical in sequence to the disclosed polynucleotides. Thus, the invention includes within its scope a polypeptide encoded by a polynucleotide having the sequence of any one of SEQ ID NOS:1-1079 or a variant thereof.

In general, the term "polypeptide" as used herein refers to both the full length polypeptide encoded by the recited polynucleotide, the polypeptide encoded by the gene represented by the recited polynucleotide, as well as portions or fragments thereof. "Polypeptides" also includes variants of the naturally occurring proteins, where such variants are homologous or substantially similar to the naturally occurring protein, and can be of an origin of the same or different species as

the naturally occurring protein (*e.g.*, human, murine, or some other species that naturally expresses the recited polypeptide, usually a mammalian species). In general, variant polypeptides have a sequence that has at least about 80%, usually at least about 90%, and more usually at least about 98% sequence identity with a differentially expressed polypeptide of the invention, as measured by BLAST 2.0 using the parameters described above. The variant polypeptides can be naturally or non-naturally glycosylated, *i.e.*, the polypeptide has a glycosylation pattern that differs from the glycosylation pattern found in the corresponding naturally occurring protein.

The invention also encompasses homologs of the disclosed polypeptides (or fragments thereof) where the homologs are isolated from other species, *i.e.* other animal or plant species, where such homologs, usually mammalian species, *e.g.* rodents, such as mice, rats; domestic animals, *e.g.*, horse, cow, dog, cat; and humans. By "homolog" is meant a polypeptide having at least about 35%, usually at least about 40% and more usually at least about 60% amino acid sequence identity to a particular differentially expressed protein as identified above, where sequence identity is determined using the BLAST 2.0 algorithm, with the parameters described *supra*.

In general, the polypeptides of the subject invention are provided in a non-naturally occurring environment, *e.g.* are separated from their naturally occurring environment. In certain embodiments, the subject protein is present in a composition that is enriched for the protein as compared to a control. As such, purified polypeptide is provided, where by purified is meant that the protein is present in a composition that is substantially free of non-differentially expressed polypeptides, where by substantially free is meant that less than 90%, usually less than 60% and more usually less than 50% of the composition is made up of non-differentially expressed polypeptides.

Also within the scope of the invention are variants; variants of polypeptides include mutants, fragments, and fusions. Mutants can include amino acid substitutions, additions or deletions. The amino acid substitutions can be conservative amino acid substitutions or substitutions to eliminate non-essential amino acids, such as to alter a glycosylation site, a phosphorylation site or an acetylation site, or to minimize misfolding by substitution or deletion of one or more cysteine residues that are not necessary for function. Conservative amino acid substitutions are those that preserve the general charge, hydrophobicity/ hydrophilicity, and/or steric bulk of the amino acid substituted. Variants can be designed so as to retain or have enhanced biological activity of a particular region of the protein (*e.g.*, a functional domain and/or, where the polypeptide is a member of a protein family, a region associated with a consensus sequence). Selection of amino acid alterations for production of variants can be based upon the accessibility (interior vs. exterior) of the amino acid (see, *e.g.*, Go *et al*, *Int. J. Peptide Protein Res.* (1980) 15:211), the thermostability of the variant polypeptide (see, *e.g.*, Querol *et al.*, *Prot. Eng.* (1996)

9:265), desired glycosylation sites (see, e.g., Olsen and Thomsen, *J. Gen. Microbiol.* (1991) 137:579), desired disulfide bridges (see, e.g., Clarke *et al.*, *Biochemistry* (1993) 32:4322; and Wakarchuk *et al.*, *Protein Eng.* (1994) 7:1379), desired metal binding sites (see, e.g., Toma *et al.*, *Biochemistry* (1991) 30:97, and Haezzebrouck *et al.*, *Protein Eng.* (1993) 6:643), and desired  
5 substitutions with in proline loops (see, e.g., Masul *et al.*, *Appl. Env. Microbiol.* (1994) 60:3579). Cysteine-depleted muteins can be produced as disclosed in USPN 4,959,314.

Variants also include fragments of the polypeptides disclosed herein, particularly biologically active fragments and/or fragments corresponding to functional domains. Fragments of interest will typically be at least about 10 aa to at least about 15 aa in length, usually at least about  
10 50 aa in length, and can be as long as 300 aa in length or longer, but will usually not exceed about 1000 aa in length, where the fragment will have a stretch of amino acids that is identical to a polypeptide encoded by a polynucleotide having a sequence of any SEQ ID NOS:1-1079, or a homolog thereof. The protein variants described herein are encoded by polynucleotides that are within the scope of the invention. The genetic code can be used to select the appropriate codons to  
15 construct the corresponding variants.

#### Computer-Related Embodiments

In general, a library of polynucleotides is a collection of sequence information, which information is provided in either biochemical form (*e.g.*, as a collection of polynucleotide molecules), or in electronic form (*e.g.*, as a collection of polynucleotide sequences stored in a  
20 computer-readable form, as in a computer system and/or as part of a computer program). The sequence information of the polynucleotides can be used in a variety of ways, *e.g.*, as a resource for gene discovery, as a representation of sequences expressed in a selected cell type (*e.g.*, cell type markers), and/or as markers of a given disease or disease state. In general, a disease marker is a representation of a gene product that is present in all cells affected by disease either at an increased  
25 or decreased level relative to a normal cell (*e.g.*, a cell of the same or similar type that is not substantially affected by disease). For example, a polynucleotide sequence in a library can be a polynucleotide that represents an mRNA, polypeptide, or other gene product encoded by the polynucleotide, that is either overexpressed or underexpressed in a breast ductal cell affected by cancer relative to a normal (*i.e.*, substantially disease-free) breast cell.

30 The nucleotide sequence information of the library can be embodied in any suitable form, *e.g.*, electronic or biochemical forms. For example, a library of sequence information embodied in electronic form comprises an accessible computer data file (or, in biochemical form, a collection of nucleic acid molecules) that contains the representative nucleotide sequences of genes that are differentially expressed (*e.g.*, overexpressed or underexpressed) as between, for example, i) a  
35 cancerous cell and a normal cell; ii) a cancerous cell and a dysplastic cell; iii) a cancerous cell and a

cell affected by a disease or condition other than cancer; iv) a metastatic cancerous cell and a normal cell and/or non-metastatic cancerous cell; v) a malignant cancerous cell and a non-malignant cancerous cell (or a normal cell) and/or vi) a dysplastic cell relative to a normal cell. Other combinations and comparisons of cells affected by various diseases or stages of disease will be readily apparent to the ordinarily skilled artisan. Biochemical embodiments of the library include a collection of nucleic acids that have the sequences of the genes in the library, where the nucleic acids can correspond to the entire gene in the library or to a fragment thereof, as described in greater detail below.

The polynucleotide libraries of the subject invention generally comprise sequence information of a plurality of polynucleotide sequences, where at least one of the polynucleotides has a sequence of any of SEQ ID NOS:1-1079. By plurality is meant at least 2, usually at least 3 and can include up to all of SEQ ID NOS:1-1079. The length and number of polynucleotides in the library will vary with the nature of the library, *e.g.*, if the library is an oligonucleotide array, a cDNA array, a computer database of the sequence information, etc.

Where the library is an electronic library, the nucleic acid sequence information can be present in a variety of media. "Media" refers to a manufacture, other than an isolated nucleic acid molecule, that contains the sequence information of the present invention. Such a manufacture provides the genome sequence or a subset thereof in a form that can be examined by means not directly applicable to the sequence as it exists in a nucleic acid. For example, the nucleotide sequence of the present invention, *e.g.* the nucleic acid sequences of any of the polynucleotides of SEQ ID NOS:1-1079, can be recorded on computer readable media, *e.g.* any medium that can be read and accessed directly by a computer. Such media include, but are not limited to: magnetic storage media, such as a floppy disc, a hard disc storage medium, and a magnetic tape; optical storage media such as CD-ROM; electrical storage media such as RAM and ROM; and hybrids of these categories such as magnetic/optical storage media. One of skill in the art can readily appreciate how any of the presently known computer readable mediums can be used to create a manufacture comprising a recording of the present sequence information. "Recorded" refers to a process for storing information on computer readable medium, using any such methods as known in the art. Any convenient data storage structure can be chosen, based on the means used to access the stored information. A variety of data processor programs and formats can be used for storage, *e.g.* word processing text file, database format, *etc.* In addition to the sequence information, electronic versions of the libraries of the invention can be provided in conjunction or connection with other computer-readable information and/or other types of computer-readable files (*e.g.*, searchable files, executable files, *etc.*, including, but not limited to, for example, search program software, *etc.*).

By providing the nucleotide sequence in computer readable form, the information can be accessed for a variety of purposes. Computer software to access sequence information is publicly available. For example, the gapped BLAST (Altschul *et al.* *Nucleic Acids Res.* (1997) 25:3389-3402) and BLAZE (Brutlag *et al.* *Comp. Chem.* (1993) 17:203) search algorithms on a Sybase system can be used to identify open reading frames (ORFs) within the genome that contain homology to ORFs from other organisms.

As used herein, "a computer-based system" refers to the hardware means, software means, and data storage means used to analyze the nucleotide sequence information of the present invention. The minimum hardware of the computer-based systems of the present invention comprises a central processing unit (CPU), input means, output means, and data storage means. A skilled artisan can readily appreciate that any one of the currently available computer-based system are suitable for use in the present invention. The data storage means can comprise any manufacture comprising a recording of the present sequence information as described above, or a memory access means that can access such a manufacture.

"Search means" refers to one or more programs implemented on the computer-based system, to compare a target sequence or target structural motif, or expression levels of a polynucleotide in a sample, with the stored sequence information. Search means can be used to identify fragments or regions of the genome that match a particular target sequence or target motif. A variety of known algorithms are publicly known and commercially available, *e.g.* MacPattern (EMBL), BLASTN and BLASTX (NCBI). A "target sequence" can be any polynucleotide or amino acid sequence of six or more contiguous nucleotides or two or more amino acids, preferably from about 10 to 100 amino acids or from about 30 to 300 nt. A variety of comparing means can be used to accomplish comparison of sequence information from a sample (*e.g.*, to analyze target sequences, target motifs, or relative expression levels) with the data storage means. A skilled artisan can readily recognize that any one of the publicly available homology search programs can be used as the search means for the computer based systems of the present invention to accomplish comparison of target sequences and motifs. Computer programs to analyze expression levels in a sample and in controls are also known in the art.

A "target structural motif," or "target motif," refers to any rationally selected sequence or combination of sequences in which the sequence(s) are chosen based on a three-dimensional configuration that is formed upon the folding of the target motif, or on consensus sequences of regulatory or active sites. There are a variety of target motifs known in the art. Protein target motifs include, but are not limited to, enzyme active sites and signal sequences. Nucleic acid target motifs include, but are not limited to, hairpin structures, promoter sequences and other expression elements such as binding sites for transcription factors.

A variety of structural formats for the input and output means can be used to input and output the information in the computer-based systems of the present invention. One format for an output means ranks the relative expression levels of different polynucleotides. Such presentation provides a skilled artisan with a ranking of relative expression levels to determine a gene expression profile.

As discussed above, the "library" of the invention also encompasses biochemical libraries of the polynucleotides of SEQ ID NOS:1-1079, *e.g.*, collections of nucleic acids representing the provided polynucleotides. The biochemical libraries can take a variety of forms, *e.g.*, a solution of cDNAs, a pattern of probe nucleic acids stably associated with a surface of a solid support (*i.e.*, an array) and the like. Of particular interest are nucleic acid arrays in which one or more of SEQ ID NOS:1-1079 is represented on the array. By array is meant an article of manufacture that has at least a substrate with at least two distinct nucleic acid targets on one of its surfaces, where the number of distinct nucleic acids can be considerably higher, typically being at least 10 nt, usually at least 20 nt and often at least 25 nt. A variety of different array formats have been developed and are known to those of skill in the art. The arrays of the subject invention find use in a variety of applications, including gene expression analysis, drug screening, mutation analysis and the like, as disclosed in the above-listed exemplary patent documents.

In addition to the above nucleic acid libraries, analogous libraries of polypeptides are also provided, where the polypeptides of the library will represent at least a portion of the polypeptides encoded by SEQ ID NOS:1-1079.

#### Utilities

##### Use of Polynucleotide Probes in Mapping, and in Tissue Profiling

Polynucleotide probes, generally comprising at least 12 contiguous nt of a polynucleotide as shown in the Sequence Listing, are used for a variety of purposes, such as chromosome mapping of the polynucleotide and detection of transcription levels. Additional disclosure about preferred regions of the disclosed polynucleotide sequences is found in the Examples. A probe that hybridizes specifically to a polynucleotide disclosed herein should provide a detection signal at least 5-, 10-, or 20-fold higher than the background hybridization provided with other unrelated sequences.

Detection of Expression Levels. Nucleotide probes are used to detect expression of a gene corresponding to the provided polynucleotide. In Northern blots, mRNA is separated electrophoretically and contacted with a probe. A probe is detected as hybridizing to an mRNA species of a particular size. The amount of hybridization is quantitated to determine relative amounts of expression, for example under a particular condition. Probes are used for *in situ* hybridization to cells to detect expression. Probes can also be used *in vivo* for diagnostic detection



of hybridizing sequences. Probes are typically labeled with a radioactive isotope. Other types of detectable labels can be used such as chromophores, fluors, and enzymes. Other examples of nucleotide hybridization assays are described in WO92/02526 and USPN 5,124,246.

Alternatively, the Polymerase Chain Reaction (PCR) is another means for detecting small amounts of target nucleic acids (see, e.g., Mullis *et al.*, *Meth. Enzymol.* (1987) 155:335; USPN 4,683,195; and USPN 4,683,202). Two primer polynucleotides nucleotides that hybridize with the target nucleic acids are used to prime the reaction. The primers can be composed of sequence within or 3' and 5' to the polynucleotides of the Sequence Listing. Alternatively, if the primers are 3' and 5' to these polynucleotides, they need not hybridize to them or the complements. After amplification of the target with a thermostable polymerase, the amplified target nucleic acids can be detected by methods known in the art, e.g., Southern blot. mRNA or cDNA can also be detected by traditional blotting techniques (e.g., Southern blot, Northern blot, etc.) described in Sambrook *et al.*, "Molecular Cloning: A Laboratory Manual" (New York, Cold Spring Harbor Laboratory, 1989) (e.g., without PCR amplification). In general, mRNA or cDNA generated from mRNA using a polymerase enzyme can be purified and separated using gel electrophoresis, and transferred to a solid support, such as nitrocellulose. The solid support is exposed to a labeled probe, washed to remove any unhybridized probe, and duplexes containing the labeled probe are detected.

Mapping. Polynucleotides of the present invention can be used to identify a chromosome on which the corresponding gene resides. Such mapping can be useful in identifying the function of the polynucleotide-related gene by its proximity to other genes with known function. Function can also be assigned to the polynucleotide-related gene when particular syndromes or diseases map to the same chromosome. For example, use of polynucleotide probes in identification and quantification of nucleic acid sequence aberrations is described in USPN 5,783,387. An exemplary mapping method is fluorescence in situ hybridization (FISH), which facilitates comparative genomic hybridization to allow total genome assessment of changes in relative copy number of DNA sequences (see, e.g., Valdes *et al.*, *Methods in Molecular Biology* (1997) 68:1). Polynucleotides can also be mapped to particular chromosomes using, for example, radiation hybrids or chromosome-specific hybrid panels. See Leach *et al.*, *Advances in Genetics*, (1995) 33:63-99; Walter *et al.*, *Nature Genetics* (1994) 7:22; Walter and Goodfellow, *Trends in Genetics* (1992) 9:352. Panels for radiation hybrid mapping are available from Research Genetics, Inc., Huntsville, Alabama, USA. Databases for markers using various panels are available via the world wide web at <http://F/shgc-www.stanford.edu>; and <http://www-genome.wi.mit.edu/cgi-bin/contig/rhmapper.pl>. The statistical program RHMAP can be used to construct a map based on the data from radiation hybridization with a measure of the relative likelihood of one order versus another. RHMAP is available via the world wide web at <http://www.sph.umich.edu/group/statgen/software>. In addition,

commercial programs are available for identifying regions of chromosomes commonly associated with disease, such as cancer.

Tissue Typing or Profiling. Expression of specific mRNA corresponding to the provided polynucleotides can vary in different cell types and can be tissue-specific. This variation of mRNA levels in different cell types can be exploited with nucleic acid probe assays to determine tissue types. For example, PCR, branched DNA probe assays, or blotting techniques utilizing nucleic acid probes substantially identical or complementary to polynucleotides listed in the Sequence Listing can determine the presence or absence of the corresponding cDNA or mRNA.

Tissue typing can be used to identify the developmental organ or tissue source of a metastatic lesion by identifying the expression of a particular marker of that organ or tissue. If a polynucleotide is expressed only in a specific tissue type, and a metastatic lesion is found to express that polynucleotide, then the developmental source of the lesion has been identified. Expression of a particular polynucleotide can be assayed by detection of either the corresponding mRNA or the protein product. As would be readily apparent to any forensic scientist, the sequences disclosed herein are useful in differentiating human tissue from non-human tissue. In particular, these sequences are useful to differentiate human tissue from bird, reptile, and amphibian tissue, for example.

Use of Polymorphisms. A polynucleotide of the invention can be used in forensics, genetic analysis, mapping, and diagnostic applications where the corresponding region of a gene is polymorphic in the human population. Any means for detecting a polymorphism in a gene can be used, including, but not limited to electrophoresis of protein polymorphic variants, differential sensitivity to restriction enzyme cleavage, and hybridization to allele-specific probes.

#### Antibody Production

Expression products of a polynucleotide of the invention, as well as the corresponding mRNA, cDNA, or complete gene, can be prepared and used for raising antibodies for experimental, diagnostic, and therapeutic purposes. For polynucleotides to which a corresponding gene has not been assigned, this provides an additional method of identifying the corresponding gene. The polynucleotide or related cDNA is expressed as described above, and antibodies are prepared. These antibodies are specific to an epitope on the polypeptide encoded by the polynucleotide, and can precipitate or bind to the corresponding native protein in a cell or tissue preparation or in a cell-free extract of an in vitro expression system.

Methods for production of antibodies that specifically bind a selected antigen are well known in the art. Immunogens for raising antibodies can be prepared by mixing a polypeptide encoded by a polynucleotide of the invention with an adjuvant, and/or by making fusion proteins with larger immunogenic proteins. Polypeptides can also be covalently linked to other larger

immunogenic proteins, such as keyhole limpet hemocyanin. Immunogens are typically administered intradermally, subcutaneously, or intramuscularly to experimental animals such as rabbits, sheep, and mice, to generate antibodies. Monoclonal antibodies can be Monoclonal antibodies can be generated by isolating spleen cells and fusing myeloma cells to form hybridomas.

- 5 Alternatively, the selected polynucleotide is administered directly, such as by intramuscular injection, and expressed in vivo. The expressed protein generates a variety of protein-specific immune responses, including production of antibodies, comparable to administration of the protein.

- Preparations of polyclonal and monoclonal antibodies specific for polypeptides encoded by a selected polynucleotide are made using standard methods known in the art. The antibodies  
10 specifically bind to epitopes present in the polypeptides encoded by polynucleotides disclosed in the Sequence Listing. Typically, at least 6, 8, 10, or 12 contiguous amino acids are required to form an epitope. Epitopes that involve non-contiguous amino acids may require a longer polypeptide, e.g., at least 15, 25, or 50 amino acids. Antibodies that specifically bind to human polypeptides encoded by the provided polypeptides should provide a detection signal at least 5-, 10-, or 20-fold higher  
15 than a detection signal provided with other proteins when used in Western blots or other immunochemical assays. Preferably, antibodies that specifically polypeptides of the invention do not bind to other proteins in immunochemical assays at detectable levels and can immunoprecipitate the specific polypeptide from solution.

- The invention also contemplates naturally occurring antibodies specific for a polypeptide of  
20 the invention. For example, serum antibodies to a polypeptide of the invention in a human population can be purified by methods well known in the art, e.g., by passing antiserum over a column to which the corresponding selected polypeptide or fusion protein is bound. The bound antibodies can then be eluted from the column, for example using a buffer with a high salt concentration.

- 25 In addition to the antibodies discussed above, the invention also contemplates genetically engineered antibodies, antibody derivatives (e.g., single chain antibodies, antibody fragments (e.g., Fab, etc.)), according to methods well known in the art.

#### Polynucleotides or Arrays for Diagnostics

- Polynucleotide arrays provide a high throughput technique that can assay a large number of  
30 polynucleotide sequences in a sample. This technology can be used as a diagnostic and as a tool to test for differential expression, e.g., to determine function of an encoded protein. Arrays can be created by spotting polynucleotide probes onto a substrate (e.g., glass, nitrocellulose, etc.) in a two-dimensional matrix or array having bound probes. The probes can be bound to the substrate by either covalent bonds or by non-specific interactions, such as hydrophobic interactions. Samples of  
35 polynucleotides can be detectably labeled (e.g., using radioactive or fluorescent labels) and then

hybridized to the probes. Double stranded polynucleotides, comprising the labeled sample polynucleotides bound to probe polynucleotides, can be detected once the unbound portion of the sample is washed away. Techniques for constructing arrays and methods of using these arrays are described in EP 799 897; WO 97/29212; WO 97/27317; EP 785 280; WO 97/02357; USPN 5,593,839; USPN 5,578,832; EP 728 520; USPN 5,599,695; EP 721 016; USPN 5,556,752; WO 95/22058; and USPN 5,631,734. Arrays can be used to, for example, examine differential expression of genes and can be used to determine gene function. For example, arrays can be used to detect differential expression of a polynucleotide between a test cell and control cell (e.g., cancer cells and normal cells). For example, high expression of a particular message in a cancer cell, which is not observed in a corresponding normal cell, can indicate a cancer specific gene product. Exemplary uses of arrays are further described in, for example, Pappalarado *et al.*, *Sem. Radiation Oncol.* (1998) 8:217; and Ramsay *Nature Biotechnol.* (1998) 16:40.

#### Differential Expression in Diagnosis

The polynucleotides of the invention can also be used to detect differences in expression levels between two cells, e.g., as a method to identify abnormal or diseased tissue in a human. For polynucleotides corresponding to profiles of protein families, the choice of tissue can be selected according to the putative biological function. In general, the expression of a gene corresponding to a specific polynucleotide is compared between a first tissue that is suspected of being diseased and a second, normal tissue of the human. The tissue suspected of being abnormal or diseased can be derived from a different tissue type of the human, but preferably it is derived from the same tissue type; for example an intestinal polyp or other abnormal growth should be compared with normal intestinal tissue. The normal tissue can be the same tissue as that of the test sample, or any normal tissue of the patient, especially those that express the polynucleotide-related gene of interest (e.g., brain, thymus, testis, heart, prostate, placenta, spleen, small intestine, skeletal muscle, pancreas, and the mucosal lining of the colon). A difference between the polynucleotide-related gene, mRNA, or protein in the two tissues which are compared, for example in molecular weight, amino acid or nucleotide sequence, or relative abundance, indicates a change in the gene, or a gene which regulates it, in the tissue of the human that was suspected of being diseased. Examples of detection of differential expression and its use in diagnosis of cancer are described in USPNs 5,688,641 and 5,677,125.

A genetic predisposition to disease in a human can also be detected by comparing expression levels of an mRNA or protein corresponding to a polynucleotide of the invention in a fetal tissue with levels associated in normal fetal tissue. Fetal tissues that are used for this purpose include, but are not limited to, amniotic fluid, chorionic villi, blood, and the blastomere of an in vitro-fertilized embryo. The comparable normal polynucleotide-related gene is obtained from any

tissue. The mRNA or protein is obtained from a normal tissue of a human in which the polynucleotide-related gene is expressed. Differences such as alterations in the nucleotide sequence or size of the same product of the fetal polynucleotide-related gene or mRNA, or alterations in the molecular weight, amino acid sequence, or relative abundance of fetal protein, can indicate a germline mutation in the polynucleotide-related gene of the fetus, which indicates a genetic predisposition to disease. In general, diagnostic, prognostic, and other methods of the invention based on differential expression involve detection of a level or amount of a gene product, particularly a differentially expressed gene product, in a test sample obtained from a patient suspected of having or being susceptible to a disease (*e.g.*, breast cancer, lung cancer, colon cancer and/or metastatic forms thereof), and comparing the detected levels to those levels found in normal cells (*e.g.*, cells substantially unaffected by cancer) and/or other control cells (*e.g.*, to differentiate a cancerous cell from a cell affected by dysplasia). Furthermore, the severity of the disease can be assessed by comparing the detected levels of a differentially expressed gene product with those levels detected in samples representing the levels of differentially gene product associated with varying degrees of severity of disease. It should be noted that use of the term "diagnostic" herein is not necessarily meant to exclude "prognostic" or "prognosis," but rather is used as a matter of convenience.

The term "differentially expressed gene" is generally intended to encompass a polynucleotide that can, for example, include an open reading frame encoding a gene product (*e.g.*, a polypeptide), and/or introns of such genes and adjacent 5' and 3' non-coding nucleotide sequences involved in the regulation of expression, up to about 20 kb beyond the coding region, but possibly further in either direction. The gene can be introduced into an appropriate vector for extrachromosomal maintenance or for integration into a host genome. In general, a difference in expression level associated with a decrease in expression level of at least about 25%, usually at least about 50% to 75%, more usually at least about 90% or more is indicative of a differentially expressed gene of interest, *i.e.*, a gene that is underexpressed or down-regulated in the test sample relative to a control sample. Furthermore, a difference in expression level associated with an increase in expression of at least about 25%, usually at least about 50% to 75%, more usually at least about 90% and can be at least about 1 1/2-fold, usually at least about 2-fold to about 10-fold, and can be about 100-fold to about 1,000-fold increase relative to a control sample is indicative of a differentially expressed gene of interest, *i.e.*, an overexpressed or up-regulated gene.

"Differentially expressed polynucleotide" as used herein means a nucleic acid molecule (RNA or DNA) comprising a sequence that represents a differentially expressed gene, *e.g.*, the differentially expressed polynucleotide comprises a sequence (*e.g.*, an open reading frame encoding a gene product) that uniquely identifies a differentially expressed gene so that detection of the

differentially expressed polynucleotide in a sample is correlated with the presence of a differentially expressed gene in a sample. "Differentially expressed polynucleotides" is also meant to encompass fragments of the disclosed polynucleotides, *e.g.*, fragments retaining biological activity, as well as nucleic acids homologous, substantially similar, or substantially identical (*e.g.*, having about 90% sequence identity) to the disclosed polynucleotides.

"Diagnosis" as used herein generally includes determination of a subject's susceptibility to a disease or disorder, determination as to whether a subject is presently affected by a disease or disorder, as well as to the prognosis of a subject affected by a disease or disorder (*e.g.*, identification of pre-metastatic or metastatic cancerous states, stages of cancer, or responsiveness of cancer to therapy). The present invention particularly encompasses diagnosis of subjects in the context of breast cancer (*e.g.*, carcinoma in situ (*e.g.*, ductal carcinoma in situ), estrogen receptor (ER)-positive breast cancer, ER-negative breast cancer, or other forms and/or stages of breast cancer), lung cancer (*e.g.*, small cell carcinoma, non-small cell carcinoma, mesothelioma, and other forms and/or stages of lung cancer), and colon cancer (*e.g.*, adenomatous polyp, colorectal carcinoma, and other forms and/or stages of colon cancer).

"Sample" or "biological sample" as used throughout here are generally meant to refer to samples of biological fluids or tissues, particularly samples obtained from tissues, especially from cells of the type associated with the disease for which the diagnostic application is designed (*e.g.*, ductal adenocarcinoma), and the like. "Samples" is also meant to encompass derivatives and fractions of such samples (*e.g.*, cell lysates). Where the sample is solid tissue, the cells of the tissue can be dissociated or tissue sections can be analyzed.

Methods of the subject invention useful in diagnosis or prognosis typically involve comparison of the abundance of a selected differentially expressed gene product in a sample of interest with that of a control to determine any relative differences in the expression of the gene product, where the difference can be measured qualitatively and/or quantitatively. Quantitation can be accomplished, for example, by comparing the level of expression product detected in the sample with the amounts of product present in a standard curve. A comparison can be made visually; by using a technique such as densitometry, with or without computerized assistance; by preparing a representative library of cDNA clones of mRNA isolated from a test sample, sequencing the clones in the library to determine that number of cDNA clones corresponding to the same gene product, and analyzing the number of clones corresponding to that same gene product relative to the number of clones of the same gene product in a control sample; or by using an array to detect relative levels of hybridization to a selected sequence or set of sequences, and comparing the hybridization pattern to that of a control. The differences in expression are then correlated with the presence or absence

of an abnormal expression pattern. A variety of different methods for determining the nucleic acid abundance in a sample are known to those of skill in the art (see, e.g., WO 97/27317).

In general, diagnostic assays of the invention involve detection of a gene product of a the polynucleotide sequence (*e.g.*, mRNA or polypeptide) that corresponds to a sequence of SEQ ID  
5 NOS:1-1079 The patient from whom the sample is obtained can be apparently healthy, susceptible to disease (*e.g.*, as determined by family history or exposure to certain environmental factors), or can already be identified as having a condition in which altered expression of a gene product of the invention is implicated.

Diagnosis can be determined based on detected gene product expression levels of a gene  
10 product encoded by at least one, preferably at least two or more, at least 3 or more, or at least 4 or more of the polynucleotides having a sequence set forth in SEQ ID NOS:1-1079, and can involve detection of expression of genes corresponding to all of SEQ ID NOS:1-1079 and/or additional sequences that can serve as additional diagnostic markers and/or reference sequences. Where the diagnostic method is designed to detect the presence or susceptibility of a patient to cancer, the  
15 assay preferably involves detection of a gene product encoded by a gene corresponding to a polynucleotide that is differentially expressed in cancer. Examples of such differentially expressed polynucleotides are described in the Examples below. Given the provided polynucleotides and information regarding their relative expression levels provided herein, assays using such polynucleotides and detection of their expression levels in diagnosis and prognosis will be readily  
20 apparent to the ordinarily skilled artisan.

Any of a variety of detectable labels can be used in connection with the various embodiments of the diagnostic methods of the invention. Suitable detectable labels include fluorochromes, (*e.g.* fluorescein isothiocyanate (FITC), rhodamine, Texas Red, phycoerythrin, allophycocyanin, 6-carboxyfluorescein (6-FAM), 2',7'-dimethoxy-4',5'-dichloro-6-  
25 carboxyfluorescein, 6-carboxy-X-rhodamine (ROX), 6-carboxy-2',4',7',4,7-hexachlorofluorescein (HEX), 5-carboxyfluorescein (5-FAM) or N,N,N',N'-tetramethyl-6-carboxyrhodamine (TAMRA)), radioactive labels, (*e.g.* <sup>32</sup>P, <sup>35</sup>S, <sup>3</sup>H, *etc.*), and the like. The detectable label can involve a two stage systems (*e.g.*, biotin-avidin, hapten-anti-hapten antibody, *etc.*)

Reagents specific for the polynucleotides and polypeptides of the invention, such as  
30 antibodies and nucleotide probes, can be supplied in a kit for detecting the presence of an expression product in a biological sample. The kit can also contain buffers or labeling components, as well as instructions for using the reagents to detect and quantify expression products in the biological sample. Exemplary embodiments of the diagnostic methods of the invention are described below in more detail.

Polypeptide detection in diagnosis. In one embodiment, the test sample is assayed for the level of a differentially expressed polypeptide. Diagnosis can be accomplished using any of a number of methods to determine the absence or presence or altered amounts of the differentially expressed polypeptide in the test sample. For example, detection can utilize staining of cells or histological sections with labeled antibodies, performed in accordance with conventional methods. Cells can be permeabilized to stain cytoplasmic molecules. In general, antibodies that specifically bind a differentially expressed polypeptide of the invention are added to a sample, and incubated for a period of time sufficient to allow binding to the epitope, usually at least about 10 minutes. The antibody can be detectably labeled for direct detection (*e.g.*, using radioisotopes, enzymes, fluorescers, chemiluminescers, and the like), or can be used in conjunction with a second stage antibody or reagent to detect binding (*e.g.*, biotin with horseradish peroxidase-conjugated avidin, a secondary antibody conjugated to a fluorescent compound, *e.g.* fluorescein, rhodamine, Texas red, *etc.*). The absence or presence of antibody binding can be determined by various methods, including flow cytometry of dissociated cells, microscopy, radiography, scintillation counting, *etc.* Any suitable alternative methods can of qualitative or quantitative detection of levels or amounts of differentially expressed polypeptide can be used, for example ELISA, western blot, immunoprecipitation, radioimmunoassay, *etc.*

mRNA detection. The diagnostic methods of the invention can also or alternatively involve detection of mRNA encoded by a gene corresponding to a differentially expressed polynucleotides of the invention. Any suitable qualitative or quantitative methods known in the art for detecting specific mRNAs can be used. mRNA can be detected by, for example, *in situ* hybridization in tissue sections, by reverse transcriptase-PCR, or in Northern blots containing poly A+ mRNA. One of skill in the art can readily use these methods to determine differences in the size or amount of mRNA transcripts between two samples. mRNA expression levels in a sample can also be determined by generation of a library of expressed sequence tags (ESTs) from the sample, where the EST library is representative of sequences present in the sample (Adams, et al., (1991) *Science* 252:1651). Enumeration of the relative representation of ESTs within the library can be used to approximate the relative representation of the gene transcript within the starting sample. The results of EST analysis of a test sample can then be compared to EST analysis of a reference sample to determine the relative expression levels of a selected polynucleotide, particularly a polynucleotide corresponding to one or more of the differentially expressed genes described herein. Alternatively, gene expression in a test sample can be performed using serial analysis of gene expression (SAGE) methodology (*e.g.*, Velculescu et al., *Science* (1995) 270:484) or differential display (DD) methodology (see, *e.g.*, U.S. 5,776,683; and U.S. 5,807,680).



Alternatively, gene expression can be analyzed using hybridization analysis.

Oligonucleotides or cDNA can be used to selectively identify or capture DNA or RNA of specific sequence composition, and the amount of RNA or cDNA hybridized to a known capture sequence determined qualitatively or quantitatively, to provide information about the relative representation of a particular message within the pool of cellular messages in a sample. Hybridization analysis can be designed to allow for concurrent screening of the relative expression of hundreds to thousands of genes by using, for example, array-based technologies having high density formats, including filters, microscope slides, or microchips, or solution-based technologies that use spectroscopic analysis (e.g., mass spectrometry). One exemplary use of arrays in the diagnostic methods of the invention is described below in more detail.

Use of a single gene in diagnostic applications. The diagnostic methods of the invention can focus on the expression of a single differentially expressed gene. For example, the diagnostic method can involve detecting a differentially expressed gene, or a polymorphism of such a gene (e.g., a polymorphism in an coding region or control region), that is associated with disease.

Disease-associated polymorphisms can include deletion or truncation of the gene, mutations that alter expression level and/or affect activity of the encoded protein, *etc.*

A number of methods are available for analyzing nucleic acids for the presence of a specific sequence, e.g. a disease associated polymorphism. Where large amounts of DNA are available, genomic DNA is used directly. Alternatively, the region of interest is cloned into a suitable vector and grown in sufficient quantity for analysis. Cells that express a differentially expressed gene can be used as a source of mRNA, which can be assayed directly or reverse transcribed into cDNA for analysis. The nucleic acid can be amplified by conventional techniques, such as the polymerase chain reaction (PCR), to provide sufficient amounts for analysis, and a detectable label can be included in the amplification reaction (e.g., using a detectably labeled primer or detectably labeled oligonucleotides) to facilitate detection. Alternatively, various methods are also known in the art that utilize oligonucleotide ligation as a means of detecting polymorphisms, see e.g., Riley *et al.*, *Nucl. Acids Res.* (1990) 18:2887; and Delahunty *et al.*, *Am. J. Hum. Genet.* (1996) 58:1239.

The amplified or cloned sample nucleic acid can be analyzed by one of a number of methods known in the art. The nucleic acid can be sequenced by dideoxy or other methods, and the sequence of bases compared to a selected sequence, e.g., to a wild-type sequence. Hybridization with the polymorphic or variant sequence can also be used to determine its presence in a sample (e.g., by Southern blot, dot blot, *etc.*). The hybridization pattern of a polymorphic or variant sequence and a control sequence to an array of oligonucleotide probes immobilized on a solid support, as described in US 5,445,934, or in WO 95/35505, can also be used as a means of identifying polymorphic or variant sequences associated with disease. Single strand conformational

polymorphism (SSCP) analysis, denaturing gradient gel electrophoresis (DGGE), and heteroduplex analysis in gel matrices are used to detect conformational changes created by DNA sequence variation as alterations in electrophoretic mobility. Alternatively, where a polymorphism creates or destroys a recognition site for a restriction endonuclease, the sample is digested with that  
5 endonuclease, and the products size fractionated to determine whether the fragment was digested. Fractionation is performed by gel or capillary electrophoresis, particularly acrylamide or agarose gels.

Screening for mutations in a gene can be based on the functional or antigenic characteristics of the protein. Protein truncation assays are useful in detecting deletions that can affect the  
10 biological activity of the protein. Various immunoassays designed to detect polymorphisms in proteins can be used in screening. Where many diverse genetic mutations lead to a particular disease phenotype, functional protein assays have proven to be effective screening tools. The activity of the encoded protein can be determined by comparison with the wild-type protein.

Pattern matching in diagnosis using arrays. In another embodiment, the diagnostic and/or  
15 prognostic methods of the invention involve detection of expression of a selected set of genes in a test sample to produce a test expression pattern (TEP). The TEP is compared to a reference expression pattern (REP), which is generated by detection of expression of the selected set of genes in a reference sample (*e.g.*, a positive or negative control sample). The selected set of genes includes at least one of the genes of the invention, which genes correspond to the polynucleotide  
20 sequences of SEQ ID NOS:1-1079. Of particular interest is a selected set of genes that includes gene differentially expressed in the disease for which the test sample is to be screened.

"Reference sequences" or "reference polynucleotides" as used herein in the context of differential gene expression analysis and diagnosis/prognosis refers to a selected set of polynucleotides, which selected set includes at least one or more of the differentially expressed  
25 polynucleotides described herein. A plurality of reference sequences, preferably comprising positive and negative control sequences, can be included as reference sequences. Additional suitable reference sequences are found in GenBank, Unigene, and other nucleotide sequence databases (including, *e.g.*, expressed sequence tag (EST), partial, and full-length sequences).

"Reference array" means an array having reference sequences for use in hybridization with a  
30 sample, where the reference sequences include all, at least one of, or any subset of the differentially expressed polynucleotides described herein. Usually such an array will include at least 3 different reference sequences, and can include any one or all of the provided differentially expressed sequences. Arrays of interest can further comprise sequences, including polymorphisms, of other genetic sequences, particularly other sequences of interest for screening for a disease or disorder  
35 (*e.g.*, cancer, dysplasia, or other related or unrelated diseases, disorders, or conditions). The

oligonucleotide sequence on the array will usually be at least about 12 nt in length, and can be of about the length of the provided sequences, or can extend into the flanking regions to generate fragments of 100 nt to 200 nt in length or more. Reference arrays can be produced according to any suitable methods known in the art. For example, methods of producing large arrays of  
5 oligonucleotides are described in U.S. 5,134,854, and U.S. 5,445,934 using light-directed synthesis techniques. Using a computer controlled system, a heterogeneous array of monomers is converted, through simultaneous coupling at a number of reaction sites, into a heterogeneous array of polymers. Alternatively, microarrays are generated by deposition of pre-synthesized oligonucleotides onto a solid substrate, for example as described in PCT published application no.  
10 WO 95/35505.

A "reference expression pattern" or "REP" as used herein refers to the relative levels of expression of a selected set of genes, particularly of differentially expressed genes, that is associated with a selected cell type, *e.g.*, a normal cell, a cancerous cell, a cell exposed to an environmental stimulus, and the like. A "test expression pattern" or "TEP" refers to relative levels of expression of  
15 a selected set of genes, particularly of differentially expressed genes, in a test sample (*e.g.*, a cell of unknown or suspected disease state, from which mRNA is isolated).

REPs can be generated in a variety of ways according to methods well known in the art. For example, REPs can be generated by hybridizing a control sample to an array having a selected set of polynucleotides (particularly a selected set of differentially expressed polynucleotides),  
20 acquiring the hybridization data from the array, and storing the data in a format that allows for ready comparison of the REP with a TEP. Alternatively, all expressed sequences in a control sample can be isolated and sequenced, *e.g.*, by isolating mRNA from a control sample, converting the mRNA into cDNA, and sequencing the cDNA. The resulting sequence information roughly or precisely reflects the identity and relative number of expressed sequences in the sample. The sequence  
25 information can then be stored in a format (*e.g.*, a computer-readable format) that allows for ready comparison of the REP with a TEP. The REP can be normalized prior to or after data storage, and/or can be processed to selectively remove sequences of expressed genes that are of less interest or that might complicate analysis (*e.g.*, some or all of the sequences associated with housekeeping genes can be eliminated from REP data).

TEPs can be generated in a manner similar to REPs, *e.g.*, by hybridizing a test sample to an array having a selected set of polynucleotides, particularly a selected set of differentially expressed polynucleotides, acquiring the hybridization data from the array, and storing the data in a format that allows for ready comparison of the TEP with a REP. The REP and TEP to be used in a comparison can be generated simultaneously, or the TEP can be compared to previously generated and stored  
35 REPs.

In one embodiment of the invention, comparison of a TEP with a REP involves hybridizing a test sample with a reference array, where the reference array has one or more reference sequences for use in hybridization with a sample. The reference sequences include all, at least one of, or any subset of the differentially expressed polynucleotides described herein. Hybridization data for the test sample is acquired, the data normalized, and the produced TEP compared with a REP generated using an array having the same or similar selected set of differentially expressed polynucleotides. Probes that correspond to sequences differentially expressed between the two samples will show decreased or increased hybridization efficiency for one of the samples relative to the other.

Methods for collection of data from hybridization of samples with a reference arrays are well known in the art. For example, the polynucleotides of the reference and test samples can be generated using a detectable fluorescent label, and hybridization of the polynucleotides in the samples detected by scanning the microarrays for the presence of the detectable label using, for example, a microscope and light source for directing light at a substrate. A photon counter detects fluorescence from the substrate, while an x-y translation stage varies the location of the substrate. A confocal detection device that can be used in the subject methods is described in USPN 5,631,734. A scanning laser microscope is described in Shalon et al., *Genome Res.* (1996) 6:639. A scan, using the appropriate excitation line, is performed for each fluorophore used. The digital images generated from the scan are then combined for subsequent analysis. For any particular array element, the ratio of the fluorescent signal from one sample (*e.g.*, a test sample) is compared to the fluorescent signal from another sample (*e.g.*, a reference sample), and the relative signal intensity determined.

Methods for analyzing the data collected from hybridization to arrays are well known in the art. For example, where detection of hybridization involves a fluorescent label, data analysis can include the steps of determining fluorescent intensity as a function of substrate position from the data collected, removing outliers, *i.e.* data deviating from a predetermined statistical distribution, and calculating the relative binding affinity of the targets from the remaining data. The resulting data can be displayed as an image with the intensity in each region varying according to the binding affinity between targets and probes.

In general, the test sample is classified as having a gene expression profile corresponding to that associated with a disease or non-disease state by comparing the TEP generated from the test sample to one or more REPs generated from reference samples (*e.g.*, from samples associated with cancer or specific stages of cancer, dysplasia, samples affected by a disease other than cancer, normal samples, *etc.*). The criteria for a match or a substantial match between a TEP and a REP include expression of the same or substantially the same set of reference genes, as well as expression of these reference genes at substantially the same levels (*e.g.*, no significant difference between the

samples for a signal associated with a selected reference sequence after normalization of the samples, or at least no greater than about 25% to about 40% difference in signal strength for a given reference sequence. In general, a pattern match between a TEP and a REP includes a match in expression, preferably a match in qualitative or quantitative expression level, of at least one of, all or  
5 any subset of the differentially expressed genes of the invention.

Pattern matching can be performed manually, or can be performed using a computer program. Methods for preparation of substrate matrices (*e.g.*, arrays), design of oligonucleotides for use with such matrices, labeling of probes, hybridization conditions, scanning of hybridized matrices, and analysis of patterns generated, including comparison analysis, are described in, for  
10 example, U.S. 5,800,992.

#### Diagnosis, Prognosis and Management of Cancer

The polynucleotides of the invention and their gene products are of particular interest as genetic or biochemical markers (*e.g.*, in blood or tissues) that will detect the earliest changes along the carcinogenesis pathway and/or to monitor the efficacy of various therapies and preventive  
15 interventions. For example, the level of expression of certain polynucleotides can be indicative of a poorer prognosis, and therefore warrant more aggressive chemo- or radio-therapy for a patient or vice versa. The correlation of novel surrogate tumor specific features with response to treatment and outcome in patients can define prognostic indicators that allow the design of tailored therapy based on the molecular profile of the tumor. These therapies include antibody targeting and gene therapy.  
20 Determining expression of certain polynucleotides and comparison of a patients profile with known expression in normal tissue and variants of the disease allows a determination of the best possible treatment for a patient, both in terms of specificity of treatment and in terms of comfort level of the patient. Surrogate tumor markers, such as polynucleotide expression, can also be used to better classify, and thus diagnose and treat, different forms and disease states of cancer. Two  
25 classifications widely used in oncology that can benefit from identification of the expression levels of the polynucleotides of the invention are staging of the cancerous disorder, and grading the nature of the cancerous tissue.

The polynucleotides of the invention can be useful to monitor patients having or susceptible to cancer to detect potentially malignant events at a molecular level before they are detectable at a  
30 gross morphological level. Furthermore, a polynucleotide of the invention identified as important for one type of cancer can also have implications for development or risk of development of other types of cancer, *e.g.*, where a polynucleotide is differentially expressed across various cancer types. Thus, for example, expression of a polynucleotide that has clinical implications for metastatic colon cancer can also have clinical implications for stomach cancer or endometrial cancer.

Staging. Staging is a process used by physicians to describe how advanced the cancerous state is in a patient. Staging assists the physician in determining a prognosis, planning treatment and evaluating the results of such treatment. Staging systems vary with the types of cancer, but generally involve the following “TNM” system: the type of tumor, indicated by T; whether the cancer has metastasized to nearby lymph nodes, indicated by N; and whether the cancer has metastasized to more distant parts of the body, indicated by M. Generally, if a cancer is only detectable in the area of the primary lesion without having spread to any lymph nodes it is called Stage I. If it has spread only to the closest lymph nodes, it is called Stage II. In Stage III, the cancer has generally spread to the lymph nodes in near proximity to the site of the primary lesion. Cancers that have spread to a distant part of the body, such as the liver, bone, brain or other site, are Stage IV, the most advanced stage.

The polynucleotides of the invention can facilitate fine-tuning of the staging process by identifying markers for the aggressivity of a cancer, *e.g.* the metastatic potential, as well as the presence in different areas of the body. Thus, a Stage II cancer with a polynucleotide signifying a high metastatic potential cancer can be used to change a borderline Stage II tumor to a Stage III tumor, justifying more aggressive therapy. Conversely, the presence of a polynucleotide signifying a lower metastatic potential allows more conservative staging of a tumor.

Grading of cancers. Grade is a term used to describe how closely a tumor resembles normal tissue of its same type. The microscopic appearance of a tumor is used to identify tumor grade based on parameters such as cell morphology, cellular organization, and other markers of differentiation. As a general rule, the grade of a tumor corresponds to its rate of growth or aggressiveness, with undifferentiated or high-grade tumors being more aggressive than well differentiated or low-grade tumors. The following guidelines are generally used for grading tumors: 1) GX Grade cannot be assessed; 2) G1 Well differentiated; G2 Moderately well differentiated; 3) G3 Poorly differentiated; 4) G4 Undifferentiated. The polynucleotides of the invention can be especially valuable in determining the grade of the tumor, as they not only can aid in determining the differentiation status of the cells of a tumor, they can also identify factors other than differentiation that are valuable in determining the aggressiveness of a tumor, such as metastatic potential.

Detection of lung cancer. The polynucleotides of the invention can be used to detect lung cancer in a subject. Although there are more than a dozen different kinds of lung cancer, the two main types of lung cancer are small cell and nonsmall cell, which encompass about 90% of all lung cancer cases. Small cell carcinoma (also called oat cell carcinoma) usually starts in one of the larger bronchial tubes, grows fairly rapidly, and is likely to be large by the time of diagnosis. Nonsmall cell lung cancer (NSCLC) is made up of three general subtypes of lung cancer. Epidermoid carcinoma (also called squamous cell carcinoma) usually starts in one of the larger bronchial tubes

and grows relatively slowly. The size of these tumors can range from very small to quite large. Adenocarcinoma starts growing near the outside surface of the lung and can vary in both size and growth rate. Some slowly growing adenocarcinomas are described as alveolar cell cancer. Large cell carcinoma starts near the surface of the lung, grows rapidly, and the growth is usually fairly large when diagnosed. Other less common forms of lung cancer are carcinoid, cylindroma, mucoepidermoid, and malignant mesothelioma.

The polynucleotides of the invention, e.g., polynucleotides differentially expressed in normal cells versus cancerous lung cells (e.g., tumor cells of high or low metastatic potential) or between types of cancerous lung cells (e.g., high metastatic versus low metastatic), can be used to distinguish types of lung cancer as well as identifying traits specific to a certain patient's cancer and selecting an appropriate therapy. For example, if the patient's biopsy expresses a polynucleotide that is associated with a low metastatic potential, it may justify leaving a larger portion of the patient's lung in surgery to remove the lesion. Alternatively, a smaller lesion with expression of a polynucleotide that is associated with high metastatic potential may justify a more radical removal of lung tissue and/or the surrounding lymph nodes, even if no metastasis can be identified through pathological examination.

Detection of breast cancer. The majority of breast cancers are adenocarcinomas subtypes, which can be summarized as follows: 1) ductal carcinoma in situ (DCIS), including comedocarcinoma; 2) infiltrating (or invasive) ductal carcinoma (IDC); 3) lobular carcinoma in situ (LCIS); 4) infiltrating (or invasive) lobular carcinoma (ILC); 5) inflammatory breast cancer; 6) medullary carcinoma; 7) mucinous carcinoma; 8) Paget's disease of the nipple; 9) Phyllodes tumor; and 10) tubular carcinoma;

The expression of polynucleotides of the invention can be used in the diagnosis and management of breast cancer, as well as to distinguish between types of breast cancer. Detection of breast cancer can be determined using expression levels of any of the appropriate polynucleotides of the invention, either alone or in combination. Determination of the aggressive nature and/or the metastatic potential of a breast cancer can also be determined by comparing levels of one or more polynucleotides of the invention and comparing levels of another sequence known to vary in cancerous tissue, e.g. ER expression. In addition, development of breast cancer can be detected by examining the ratio of expression of a differentially expressed polynucleotide to the levels of steroid hormones (e.g., testosterone or estrogen) or to other hormones (e.g., growth hormone, insulin). Thus expression of specific marker polynucleotides can be used to discriminate between normal and cancerous breast tissue, to discriminate between breast cancers with different cells of origin, to discriminate between breast cancers with different potential metastatic rates, etc.

Detection of colon cancer. The polynucleotides of the invention exhibiting the appropriate expression pattern can be used to detect colon cancer in a subject. Colorectal cancer is one of the most common neoplasms in humans and perhaps the most frequent form of hereditary neoplasia. Prevention and early detection are key factors in controlling and curing colorectal cancer.

- 5 Colorectal cancer begins as polyps, which are small, benign growths of cells that form on the inner lining of the colon. Over a period of several years, some of these polyps accumulate additional mutations and become cancerous. Multiple familial colorectal cancer disorders have been identified, which are summarized as follows: 1) Familial adenomatous polyposis (FAP); 2) Gardner's syndrome; 3) Hereditary nonpolyposis colon cancer (HNPCC); and 4) Familial colorectal cancer in
- 10 Ashkenazi Jews. The expression of appropriate polynucleotides of the invention can be used in the diagnosis, prognosis and management of colorectal cancer. Detection of colon cancer can be determined using expression levels of any of these sequences alone or in combination with the levels of expression. Determination of the aggressive nature and/or the metastatic potential of a colon cancer can be determined by comparing levels of one or more polynucleotides of the
- 15 invention and comparing total levels of another sequence known to vary in cancerous tissue, *e.g.*, expression of p53, DCC ras, or FAP (see, *e.g.*, Fearon ER, *et al.*, *Cell* (1990) 61(5):759; Hamilton SR *et al.*, *Cancer* (1993) 72:957; Bodmer W, *et al.*, *Nat Genet.* (1994) 4(3):217; Fearon ER, *Ann N Y Acad Sci.* (1995) 768:101). For example, development of colon cancer can be detected by examining the ratio of any of the polynucleotides of the invention to the levels of oncogenes (*e.g.*
- 20 ras) or tumor suppressor genes (*e.g.* FAP or p53). Thus expression of specific marker polynucleotides can be used to discriminate between normal and cancerous colon tissue, to discriminate between colon cancers with different cells of origin, to discriminate between colon cancers with different potential metastatic rates, etc.

- Detection of prostate cancer. The polynucleotides and their corresponding genes and gene
- 25 products exhibiting the appropriate differential expression pattern can be used to detect prostate cancer in a subject. Over 95% of primary prostate cancers are adenocarcinomas. Signs and symptoms may include: frequent urination, especially at night, inability to urinate, trouble starting or holding back urination, a weak or interrupted urine flow and frequent pain or stiffness in the lower back, hips or upper thighs.

- 30 Many of the signs and symptoms of prostate cancer can be caused by a variety of other non-cancerous conditions. For example, one common cause of many of these signs and symptoms is a condition called benign prostatic hypertrophy, or BPH. In BPH, the prostate gets bigger and may block the flow of urine or interfere with sexual function. The methods and compositions of the invention can be used to distinguish between prostate cancer and such non-cancerous conditions.
- 35 The methods of the invention can be used in conjunction with conventional methods of diagnosis,



e.g., digital rectal exam and/or detection of the level of prostate specific antigen (PSA), a substance produced and secreted by the prostate.

Use of Polynucleotides to Screen for Peptide Analogs and Antagonists

Polypeptides encoded by the instant polynucleotides and corresponding full length genes  
5 can be used to screen peptide libraries to identify binding partners, such as receptors, from among the encoded polypeptides. Peptide libraries can be synthesized according to methods known in the art (see, e.g., USPN 5,010,175 , and WO 91/17823). Agonists or antagonists of the polypeptides if the invention can be screened using any available method known in the art, such as signal transduction, antibody binding, receptor binding, mitogenic assays, chemotaxis assays, etc. The  
10 assay conditions ideally should resemble the conditions under which the native activity is exhibited *in vivo*, that is, under physiologic pH, temperature, and ionic strength. Suitable agonists or antagonists will exhibit strong inhibition or enhancement of the native activity at concentrations that do not cause toxic side effects in the subject. Agonists or antagonists that compete for binding to the native polypeptide can require concentrations equal to or greater than the native concentration,  
15 while inhibitors capable of binding irreversibly to the polypeptide can be added in concentrations on the order of the native concentration.

Such screening and experimentation can lead to identification of a novel polypeptide binding partner, such as a receptor, encoded by a gene or a cDNA corresponding to a polynucleotide of the invention, and at least one peptide agonist or antagonist of the novel binding partner. Such  
20 agonists and antagonists can be used to modulate, enhance, or inhibit receptor function in cells to which the receptor is native, or in cells that possess the receptor as a result of genetic engineering. Further, if the novel receptor shares biologically important characteristics with a known receptor, information about agonist/antagonist binding can facilitate development of improved agonists/antagonists of the known receptor.

25 Pharmaceutical Compositions and Therapeutic Uses

Pharmaceutical compositions of the invention can comprise polypeptides, antibodies, or polynucleotides (including antisense nucleotides and ribozymes) of the claimed invention in a therapeutically effective amount. The term "therapeutically effective amount" as used herein refers to an amount of a therapeutic agent to treat, ameliorate, or prevent a desired disease or condition, or  
30 to exhibit a detectable therapeutic or preventative effect. The effect can be detected by, for example, chemical markers or antigen levels. Therapeutic effects also include reduction in physical symptoms, such as decreased body temperature. The precise effective amount for a subject will depend upon the subject's size and health, the nature and extent of the condition, and the therapeutics or combination of therapeutics selected for administration. Thus, it is not useful to  
35 specify an exact effective amount in advance. However, the effective amount for a given situation is

determined by routine experimentation and is within the judgment of the clinician. For purposes of the present invention, an effective dose will generally be from about 0.01 mg/ kg to 50 mg/kg or 0.05 mg/kg to about 10 mg/kg of the DNA constructs in the individual to which it is administered.

A pharmaceutical composition can also contain a pharmaceutically acceptable carrier. The term “pharmaceutically acceptable carrier” refers to a carrier for administration of a therapeutic agent, such as antibodies or a polypeptide, genes, and other therapeutic agents. The term refers to any pharmaceutical carrier that does not itself induce the production of antibodies harmful to the individual receiving the composition, and which can be administered without undue toxicity.

Suitable carriers can be large, slowly metabolized macromolecules such as proteins,

polysaccharides, polylactic acids, polyglycolic acids, polymeric amino acids, amino acid copolymers, and inactive virus particles. Such carriers are well known to those of ordinary skill in the art. Pharmaceutically acceptable carriers in therapeutic compositions can include liquids such as water, saline, glycerol and ethanol. Auxiliary substances, such as wetting or emulsifying agents, pH buffering substances, and the like, can also be present in such vehicles. Typically, the therapeutic

compositions are prepared as injectables, either as liquid solutions or suspensions; solid forms suitable for solution in, or suspension in, liquid vehicles prior to injection can also be prepared.

Liposomes are included within the definition of a pharmaceutically acceptable carrier.

Pharmaceutically acceptable salts can also be present in the pharmaceutical composition, e.g., mineral acid salts such as hydrochlorides, hydrobromides, phosphates, sulfates, and the like; and the salts of organic acids such as acetates, propionates, malonates, benzoates, and the like. A thorough discussion of pharmaceutically acceptable excipients is available in *Remington's Pharmaceutical Sciences* (Mack Pub. Co., N.J. 1991).

Delivery Methods. Once formulated, the compositions of the invention can be (1) administered directly to the subject (e.g., as polynucleotide or polypeptides); or (2) delivered ex vivo, to cells derived from the subject (e.g., as in *ex vivo* gene therapy). Direct delivery of the compositions will generally be accomplished by parenteral injection, e.g., subcutaneously, intraperitoneally, intravenously or intramuscularly, intratumoral or to the interstitial space of a tissue. Other modes of administration include oral and pulmonary administration, suppositories, and transdermal applications, needles, and gene guns or hyposprays. Dosage treatment can be a single dose schedule or a multiple dose schedule.

Methods for the ex vivo delivery and reimplantation of transformed cells into a subject are known in the art and described in e.g., International Publication No. WO 93/14778. Examples of cells useful in ex vivo applications include, for example, stem cells, particularly hematopoietic, lymph cells, macrophages, dendritic cells, or tumor cells. Generally, delivery of nucleic acids for both ex vivo and in vitro applications can be accomplished by, for example, dextran-mediated

transfection, calcium phosphate precipitation, polybrene mediated transfection, protoplast fusion, electroporation, encapsulation of the polynucleotide(s) in liposomes, and direct microinjection of the DNA into nuclei, all well known in the art.

Once a gene corresponding to a polynucleotide of the invention has been found to correlate  
5 with a proliferative disorder, such as neoplasia, dysplasia, and hyperplasia, the disorder can be amenable to treatment by administration of a therapeutic agent based on the provided polynucleotide, corresponding polypeptide or other corresponding molecule (e.g., antisense, ribozyme, etc.).

The dose and the means of administration of the inventive pharmaceutical compositions are  
10 determined based on the specific qualities of the therapeutic composition, the condition, age, and weight of the patient, the progression of the disease, and other relevant factors. For example, administration of polynucleotide therapeutic compositions agents of the invention includes local or systemic administration, including injection, oral administration, particle gun or catheterized administration, and topical administration. Preferably, the therapeutic polynucleotide composition  
15 contains an expression construct comprising a promoter operably linked to a polynucleotide of at least 12, 22, 25, 30, or 35 contiguous nt of the polynucleotide disclosed herein. Various methods can be used to administer the therapeutic composition directly to a specific site in the body. For example, a small metastatic lesion is located and the therapeutic composition injected several times in several different locations within the body of tumor. Alternatively, arteries which serve a tumor  
20 are identified, and the therapeutic composition injected into such an artery, in order to deliver the composition directly into the tumor. A tumor that has a necrotic center is aspirated and the composition injected directly into the now empty center of the tumor. The antisense composition is directly administered to the surface of the tumor, for example, by topical application of the composition. X-ray imaging is used to assist in certain of the above delivery methods.

25 Receptor-mediated targeted delivery of therapeutic compositions containing an antisense polynucleotide, subgenomic polynucleotides, or antibodies to specific tissues can also be used. Receptor-mediated DNA delivery techniques are described in, for example, Findeis *et al.*, *Trends Biotechnol.* (1993) 11:202; Chiou *et al.*, *Gene Therapeutics: Methods And Applications Of Direct Gene Transfer* (J.A. Wolff, ed.) (1994); Wu *et al.*, *J. Biol. Chem.* (1988) 263:621; Wu *et al.*, *J. Biol. Chem.* (1994) 269:542; Zenke *et al.*, *Proc. Natl. Acad. Sci. (USA)* (1990) 87:3655; Wu *et al.*, *J. Biol. Chem.* (1991) 266:338. Therapeutic compositions containing a polynucleotide are  
30 administered in a range of about 100 ng to about 200 mg of DNA for local administration in a gene therapy protocol. Concentration ranges of about 500 ng to about 50 mg, about 1 µg to about 2 mg, about 5 µg to about 500 µg, and about 20 µg to about 100 µg of DNA can also be used during a

gene therapy protocol. Factors such as method of action (e.g., for enhancing or inhibiting levels of the encoded gene product) and efficacy of transformation and expression are considerations which will affect the dosage required for ultimate efficacy of the antisense subgenomic polynucleotides.

Where greater expression is desired over a larger area of tissue, larger amounts of antisense

5 subgenomic polynucleotides or the same amounts readministered in a successive protocol of administrations, or several administrations to different adjacent or close tissue portions of, for example, a tumor site, may be required to effect a positive therapeutic outcome. In all cases, routine experimentation in clinical trials will determine specific ranges for optimal therapeutic effect. For polynucleotide related genes encoding polypeptides or proteins with anti-inflammatory activity,  
10 suitable use, doses, and administration are described in USPN 5,654,173.

The therapeutic polynucleotides and polypeptides of the present invention can be delivered using gene delivery vehicles. The gene delivery vehicle can be of viral or non-viral origin (see generally, Jolly, *Cancer Gene Therapy* (1994) 1:51; Kimura, *Human Gene Therapy* (1994) 5:845; Connelly, *Human Gene Therapy* (1995) 1:185; and Kaplitt, *Nature Genetics* (1994) 6:148).

15 Expression of such coding sequences can be induced using endogenous mammalian or heterologous promoters. Expression of the coding sequence can be either constitutive or regulated.

Viral-based vectors for delivery of a desired polynucleotide and expression in a desired cell are well known in the art. Exemplary viral-based vehicles include, but are not limited to, recombinant retroviruses (see, e.g., WO 90/07936; WO 94/03622; WO 93/25698; WO 93/25234;  
20 USPN 5, 219,740; WO 93/11230; WO 93/10218; USPN 4,777,127; GB Patent No. 2,200,651; EP 0 345 242; and WO 91/02805), alphavirus-based vectors (e.g., Sindbis virus vectors, Semliki forest virus (ATCC VR-67; ATCC VR-1247), Ross River virus (ATCC VR-373; ATCC VR-1246) and Venezuelan equine encephalitis virus (ATCC VR-923; ATCC VR-1250; ATCC VR 1249; ATCC VR-532), and adeno-associated virus (AAV) vectors (see, e.g., WO 94/12649, WO 93/03769; WO  
25 93/19191; WO 94/28938; WO 95/11984 and WO 95/00655). Administration of DNA linked to killed adenovirus as described in Curiel, *Hum. Gene Ther.* (1992) 3:147 can also be employed.

Non-viral delivery vehicles and methods can also be employed, including, but not limited to, polycationic condensed DNA linked or unlinked to killed adenovirus alone (see, e.g., Curiel, *Hum. Gene Ther.* (1992) 3:147); ligand-linked DNA (see, e.g., Wu, *J. Biol. Chem.* (1989)  
30 264:16985); eukaryotic cell delivery vehicles cells (see, e.g., USPN 5,814,482; WO 95/07994; WO 96/17072; WO 95/30763; and WO 97/42338) and nucleic charge neutralization or fusion with cell membranes. Naked DNA can also be employed. Exemplary naked DNA introduction methods are described in WO 90/11092 and USPN 5,580,859. Liposomes that can act as gene delivery vehicles are described in USPN 5,422,120; WO 95/13796; WO 94/23697; WO 91/14445; and  
35 EP 0524968. Additional approaches are described in Philip, *Mol. Cell Biol.* (1994) 14:2411, and in

Woffendin, *Proc. Natl. Acad. Sci.* (1994) 91:1581

Further non-viral delivery suitable for use includes mechanical delivery systems such as the approach described in Woffendin *et al.*, *Proc. Natl. Acad. Sci. USA* (1994) 91(24):11581.

Moreover, the coding sequence and the product of expression of such can be delivered through deposition of photopolymerized hydrogel materials or use of ionizing radiation (see, e.g., USPN 5,206,152 and WO 92/11033). Other conventional methods for gene delivery that can be used for delivery of the coding sequence include, for example, use of hand-held gene transfer particle gun (see, e.g., USPN 5,149,655); use of ionizing radiation for activating transferred gene (see, e.g., USPN 5,206,152 and WO 92/11033).

The present invention will now be illustrated by reference to the following examples which set forth particularly advantageous embodiments. However, it should be noted that these embodiments are illustrative and are not to be construed as restricting the invention in any way.

#### EXAMPLES

The following examples are offered primarily for purposes of illustration. It will be readily apparent to those skilled in the art that the formulations, dosages, methods of administration, and other parameters of this invention may be further modified or substituted in various ways without departing from the spirit and scope of the invention.

##### Example 1: Source of Biological Materials and Overview of Novel Polynucleotides Expressed by the Biological Materials

cDNA libraries were constructed from either human colon cancer cell line Km12L4-A (Morikawa, et al., *Cancer Research* (1988) 48:6863), KM12C (Morikawa et al. *Cancer Res.* (1988) 48:1943-1948), or MDA-MB-231 (Brinkley et al. *Cancer Res.* (1980) 40:3118-3129) was used to construct a cDNA library from mRNA isolated from the cells. Sequences expressed by these cell lines were isolated and analyzed; most sequences were about 275-300 nucleotides in length. The KM12L4-A cell line is derived from the KM12C cell line. The KM12C cell line, which is poorly metastatic (low metastatic) was established in culture from a Dukes' stage B<sub>2</sub> surgical specimen (Morikawa *et al.* *Cancer Res.* (1988) 48:6863). The KML4-A is a highly metastatic subline derived from KM12C (Yeatman *et al.* *Nucl. Acids. Res.* (1995) 23:4007; Bao-Ling *et al.* *Proc. Annu. Meet. Am. Assoc. Cancer. Res.* (1995) 21:3269). The KM12C and KM12C-derived cell lines (e.g., KM12L4, KM12L4-A, etc.) are well-recognized in the art as a model cell line for the study of colon cancer (see, e.g., Moriakawa *et al.*, *supra*; Radinsky *et al.* *Clin. Cancer Res.* (1995) 1:19; Yeatman *et al.*, (1995) *supra*; Yeatman *et al.* *Clin. Exp. Metastasis* (1996) 14:246). The MDA-MB-231 cell line was originally isolated from pleural effusions (Cailleau, *J. Natl. Cancer. Inst.* (1974) 53:661), is of high metastatic potential, and forms poorly differentiated adenocarcinoma grade II in nude mice

consistent with breast carcinoma.

The sequences of the isolated polynucleotides were first masked to eliminate low complexity sequences using the XBLAST masking program (Claverie "Effective Large-Scale Sequence Similarity Searches," In: Computer Methods for Macromolecular Sequence Analysis, Doolittle, ed., *Meth. Enzymol.* 266:212-227 Academic Press, NY, NY (1996); see particularly Claverie, in "Automated DNA Sequencing and Analysis Techniques" Adams *et al.*, eds., Chap. 36, p. 267 Academic Press, San Diego, 1994 and Claverie *et al. Comput. Chem.* (1993)17:191 ). Generally, masking does not influence the final search results, except to eliminate sequences of relative little interest due to their low complexity, and to eliminate multiple "hits" based on similarity to repetitive regions common to multiple sequences, e.g., Alu repeats. Masking resulted in the elimination of 43 sequences. The remaining sequences were then used in a BLASTN vs. GenBank search; sequences that exhibited greater than 70% overlap, 99% identity, and a p value of less than  $1 \times 10^{-40}$  were discarded. Sequences from this search also were discarded if the inclusive parameters were met, but the sequence was ribosomal or vector-derived.

The resulting sequences from the previous search were classified into three groups (1, 2 and 3 below) and searched in a BLASTX vs. NRP (non-redundant proteins) database search: (1) unknown (no hits in the GenBank search), (2) weak similarity (greater than 45% identity and p value of less than  $1 \times 10^{-5}$ ), and (3) high similarity (greater than 60% overlap, greater than 80% identity, and p value less than  $1 \times 10^{-5}$ ). Sequences having greater than 70% overlap, greater than 99% identity, and p value of less than  $1 \times 10^{-40}$  were discarded.

The remaining sequences were classified as unknown (no hits), weak similarity, and high similarity (parameters as above). Two searches were performed on these sequences. First, a BLAST vs. EST database search was performed and sequences with greater than 99% overlap, greater than 99% similarity and a p value of less than  $1 \times 10^{-40}$  were discarded. Sequences with a p value of less than  $1 \times 10^{-65}$  when compared to a database sequence of human origin were also excluded. Second, a BLASTN vs. Patent GeneSeq database was performed and sequences having greater than 99% identity, p value less than  $1 \times 10^{-40}$ , and greater than 99% overlap were discarded.

The remaining sequences were subjected to screening using other rules and redundancies in the dataset. Sequences with a p value of less than  $1 \times 10^{-111}$  in relation to a database sequence of human origin were specifically excluded. The final result provided the 982 sequences listed as SEQ ID NOS:1-982 in the accompanying Sequence Listing and summarized in Table 1A (inserted prior

to claims). Each identified polynucleotide represents sequence from at least a partial mRNA transcript.

Table 1A provides: 1) the SEQ ID NO assigned to each sequence for use in the present specification; 2) the filing date of the U.S. priority application in which the sequence was first filed; 3) the attorney docket number assigned to the priority application (for internal use); 4) the SEQ ID NO assigned to the sequence in the priority application; 5) the sequence name used as an internal identifier of the sequence; and 6) the name assigned to the clone from which the sequence was isolated. Because the provided polynucleotides represent partial mRNA transcripts, two or more polynucleotides of the invention may represent different regions of the same mRNA transcript and the same gene. Thus, if two or more SEQ ID NOS: are identified as belonging to the same clone, then either sequence can be used to obtain the full-length mRNA or gene.

In order to confirm the sequences of SEQ ID NOS:1-982, the clones were retrieved from a library using a robotic retrieval system, and the inserts of the retrieved clones re-sequenced. These "validation" sequences are provided as SEQ ID NOS:983-996 in the Sequence Listing, and a summary of the "validation" sequences provided in Table 1B (inserted prior to claims). Table 1B provides: 1) the SEQ ID NO assigned to each sequence for use in the present specification; 2) the sample name assigned to the "validation" sequence obtained; and 3) the name of the clone that contains the indicated "validation" sequence. "Validation" sequences can be correlated with the original sequences they validate by referring to Table 1A. Because the "validation" sequences are often longer than the original polynucleotide sequences and thus provide additional sequence information. All validation sequences can be obtained either from the corresponding clone or from a cDNA library described herein (*e.g.*, using primers designed from the sequence provided in the sequence listing).

#### Example 2: Results of Public Database Search to Identify Function of Gene Products

SEQ ID NOS:1-1079 were translated in all three reading frames, and the nucleotide sequences and translated amino acid sequences used as query sequences to search for homologous sequences in either the GenBank (nucleotide sequences) or Non-Redundant Protein (amino acid sequences) databases. Query and individual sequences were aligned using the BLAST 2.0 programs, available over the world wide web at <http://www.ncbi.nlm.nih.gov/BLAST/>. (see also Altschul, et al. *Nucleic Acids Res.* (1997) 25:3389-3402). The sequences were masked to various extents to prevent searching of repetitive sequences or poly-A sequences, using the XBLAST program for masking low complexity as described above in Example 1.

Tables 2A and 2B (inserted before the claims) provide the alignment summaries having a p

value of  $1 \times 10^{-2}$  or less indicating substantial homology between the sequences of the present invention and those of the indicated public databases. Table 2A provides the SEQ ID NO of the query sequence, the accession number of the GenBank database entry of the homologous sequence, and the p value of the alignment. Table 2A provides the SEQ ID NO of the query sequence, the accession number of the Non-Redundant Protein database entry of the homologous sequence, and the p value of the alignment. The alignments provided in Tables 2A and 2B are the best available alignment to a DNA or amino acid sequence at a time just prior to filing of the present specification.

The activity of the polypeptide encoded by the SEQ ID NOS listed in Tables 2A and 2B can be extrapolated to be substantially the same or substantially similar to the activity of the reported nearest neighbor or closely related sequence. The accession number of the nearest neighbor is reported, providing a publicly available reference to the activities and functions exhibited by the nearest neighbor. The public information regarding the activities and functions of each of the nearest neighbor sequences is incorporated by reference in this application. Also incorporated by reference is all publicly available information regarding the sequence, as well as the putative and actual activities and functions of the nearest neighbor sequences listed in Table 2 and their related sequences. The search program and database used for the alignment, as well as the calculation of the p value are also indicated.

Full length sequences or fragments of the polynucleotide sequences of the nearest neighbors can be used as probes and primers to identify and isolate the full length sequence of the corresponding polynucleotide. The nearest neighbors can indicate a tissue or cell type to be used to construct a library for the full-length sequences of the corresponding polynucleotides.

Example 3: Identification of Contiguous Sequences Having a Polynucleotide of the Invention

The novel polynucleotides were used to screen publicly available and proprietary databases to determine if any of the polynucleotides of SEQ ID NOS:1-982 would facilitate identification of a contiguous sequence, *e.g.*, the polynucleotides would provide sequence that would result in 5' extension of another DNA sequence, resulting in production of a longer contiguous sequence composed of the provided polynucleotide and the other DNA sequence(s). Contigging was performed using the Gelmerge application (default settings) of GCG from the Univ. of Wisconsin.

Using these parameters, 83 contigged sequences were generated. These contigged sequences are provided as SEQ ID NOS:997-1079 (see Table 1C). Table 1C provides the SEQ ID NO of the contig sequence, the name of the sequence used to create the contig, and the accession number of the publicly available tentative human consensus (THC) sequence used with the sequence of the corresponding sequence name to provide the contig. The sequence name of Table 1C can be



correlated with the SEQ ID NO: of the polynucleotide used to generate the contig by referring to Tables 1A and 1B.

The contiged sequences (SEQ ID NOS:997-1079) represent longer sequences that encompass another of the polynucleotide sequence of the invention. The contiged sequences were then translated in all three reading frames to determine the best alignment with individual sequences using the BLAST programs as described above. The sequences were masked using the XBLAST program for masking low complexity as described above in Example 1. As described in more detail below, several of the contiged sequences were found to encode polypeptides having characteristics of a polypeptide belonging to a known protein families (and thus represent new members of these protein families) and/or comprising a known functional domain (see Example 4 and Table 3 below). Thus the invention encompasses fragments, fusions, and variants of such polynucleotides that retain biological activity associated with the protein family and/or functional domain identified herein.

Example 4: Members of Protein Families

SEQ ID NOS:1-1079 were used to conduct a profile search as described in the specification above. Several of the polynucleotides of the invention were found to encode polypeptides having characteristics of a polypeptide belonging to a known protein family (and thus represent nmembers of these protein families) and/or comprising a known functional domain. Table 3 (inserted before claims) provides the SEQ ID NO: of the query sequence, a brief description of the profile hit, the position of the query sequence within the individual sequence (indicated as "start" and "stop"), and the orientation (Direction, "Dir") of the query sequence with respect to the individual sequence, where forward (for) indicates that the alignment is in the same direction (left to right) as the sequence provided in the Sequence Listing and reverse (rev) indicates that the alignment is with a sequence complementary to the sequence provided in the Sequence Listing.

Some polynucleotides exhibited multiple profile hits where the query sequence contains overlapping profile regions, and/or where the sequence contains two different functional domains. Each of the profile hits of Table 3 are described in more detail below. The acronyms for the profiles (provided in parentheses) are those used to identify the profile in the Pfam and Prosite databases.

The Pfam database can be accessed through any of the following URLs:

<http://pfam.wustl.edu/index.html>; [http://www.sanger.ac.uk/ Software/Pfam/](http://www.sanger.ac.uk/Software/Pfam/) and <http://www.cgr.ki.se/Pfam/>. The Prosite database can be accessed at <http://www.expasy.ch/prosite/>

The public information available on the Pfam and Prosite databases regarding the various profiles, including but not limited to the activities, function, and consensus sequences of various proteins families and protein domains, is incorporated herein by reference.

14-3-3 Family (14 3 3; Pfam Pfam Accession No. PF00244). SEQ ID NO:1053

corresponds to a sequence encoding a 14-3-3 protein family member. The 14-3-3 protein family includes a group of closely related acidic homodimeric proteins of about 30 kD first identified as very abundant in mammalian brain tissues and located preferentially in neurons (Aitken et al.

5 *Trends Biochem. Sci.* (1995) 20:95-97; Morrison *Science* (1994) 266:56-57; and Xiao et al. *Nature* (1995) 376:188-191). The 14-3-3 proteins have multiple biological activities, including a key role in signal transduction pathways and the cell cycle. 14-3-3 proteins interact with kinases (e.g., PKC or Raf-1), and can also function as protein-kinase dependent activators of tyrosine and tryptophan hydroxylases. The 14-3-3 protein sequences are extremely well conserved, and include two highly  
10 conserved regions: the first is a peptide of 11 residues located in the N-terminal section; the second, a 20 amino acid region located in the C-terminal section. The consensus patterns are as follows: 1) R-N-L-[LIV]-S-[VG]-[GA]-Y-[KN]-N-[IVA]; 2) Y-K-[DE]-S-T-L-I-[IM]-Q-L-[LF]-[RHC]-D-N-[LF]-T-[LS]-W-[TAN]-[SAD].

Ank Repeats (ANK; Pfam Accession No. PF0023). SEQ ID NO:311, represents a

15 polynucleotide encoding an Ank repeat-containing protein. The ankyrin motif is a 33 amino acid sequence named after the protein ankyrin which has 24 tandem 33-amino-acid motifs. Ank repeats were originally identified in the cell-cycle-control protein cdc10 (Breedon *et al.* *Nature* (1987) 329:651). Proteins containing ankyrin repeats include ankyrin, myotropin, I-kappaB proteins, cell cycle protein cdc10, the Notch receptor (Matsuno *et al.*, *Development* (1997) 124(21):4265); G9a  
20 (or BAT8) of the class III region of the major histocompatibility complex (Biochem J. 290:811-818, 1993), FABP, GABP, 53BP2, Lin12, glp-1, SW14, and SW16. The functions of the ankyrin repeats are compatible with a role in protein-protein interactions (Bork, *Proteins* (1993) 17(4):363; Lambert and Bennet, *Eur. J. Biochem.* (1993) 211:1; Kerr *et al.*, *Current Op. Cell Biol.* (1992) 4:496; Bennet *et al.*, *J. Biol. Chem.* (1980) 255:6424).

25 ATPases Associated with Various Cellular Activities (ATPases; Pfam Accession No. PF0004). SEQ ID NOS:1035, 1058, and 1072 correspond to a sequence that encodes a member of a family of ATPases Associated with diverse cellular Activities (AAA). The AAA protein family is composed of a large number of ATPases that share a conserved region of about 220 amino acids containing an ATP-binding site (Froehlich *et al.*, *J. Cell Biol.* (1991) 114:443; Erdmann *et al.* *Cell* (1991) 64:499; Peters *et al.*, *EMBO J.* (1990) 9:1757; Kunau *et al.*, *Biochimie* (1993) 75:209-224; Confalonieri *et al.*, *BioEssays* (1995) 17:639; <http://yeamob.pci.chemie.uni-tuebingen.de/AAA/Description.html>). The AAA domain, which can be present in one or two copies, acts as an ATP-dependent protein clamp (Confalonieri *et al.* (1995) *BioEssays* 17:639) and contains a highly conserved region located in the central part of the domain. The consensus pattern  
35 is: [LIVMT]-x-[LIVMT]-[LIVMF]-x-[GATMC]-[ST]-[NS]-x(4)-[LIVM]-D-x-A-[LIFA]-x-R.

Basic Region Plus Leucine Zipper Transcription Factors (BZIP; Pfam Accession

No. PF00170). SEQ ID NO:918 represents a polynucleotide encoding a novel member of the family of basic region plus leucine zipper transcription factors. The bZIP superfamily (Hurst, *Protein Prof.* (1995) 2:105; and Ellenberger, *Curr. Opin. Struct. Biol.* (1994) 4:12) of eukaryotic DNA-binding transcription factors encompasses proteins that contain a basic region mediating sequence-specific DNA-binding followed by a leucine zipper required for dimerization. The consensus pattern for this protein family is: [KR]-x(1,3)-[RKSAQ]-N-x(2)-[SAQ](2)-x-[RKTAENQ]-x-R-x-[RK].

EF Hand (Efhand; Pfam Accession No. PF00036). SEQ ID NO:242 corresponds to a

polynucleotide encoding a member of the EF-hand protein family, a calcium binding domain shared by many calcium-binding proteins belonging to the same evolutionary family (Kawasaki *et al.*, *Protein. Prof.* (1995) 2:305-490). The domain is a twelve residue loop flanked on both sides by a twelve residue alpha-helical domain, with a calcium ion coordinated in a pentagonal bipyramidal configuration. The six residues involved in the binding are in positions 1, 3, 5, 7, 9 and 12; these residues are denoted by X, Y, Z, -Y, -X and -Z. The invariant Glu or Asp at position 12 provides two oxygens for liganding Ca (bidentate ligand). The consensus pattern includes the complete EF-hand loop as well as the first residue which follows the loop and which seem to always be hydrophobic: D-x-[DNS]-{ILVFYW}-[DENSTG]-[DNQGHRK]-{GP}-[LIVMC]-[DENQSTAGC]-x(2)-[DE]-[LIVMFYW].

Ets Domain (Ets Nterm; Pfam Accession No. PF110178). SEQ ID NO:547, and thus the

sequence it validates, represents a polynucleotide encoding a polypeptide with N-terminal homology in ETS domain. Proteins of this family contain a conserved domain, the "ETS-domain," that is involved in DNA binding. The domain appears to recognize purine-rich sequences; it is about 85 to 90 amino acids in length, and is rich in aromatic and positively charged residues (Wasylyk, *et al.*, *Eur. J. Biochem.* (1993) 211:718). The *ets* gene family encodes a novel class of DNA-binding proteins, each of which binds a specific DNA sequence and comprises an *ets* domain that specifically interacts with sequences containing the common core tri-nucleotide sequence GGA. In addition to an *ets* domain, native *ets* proteins comprise other sequences which can modulate the biological specificity of the protein. *Ets* genes and proteins are involved in a variety of essential biological processes including cell growth, differentiation and development, and three members are implicated in oncogenic process.

(FKH; Pfam Accession No. PF00250). SEQ ID NO:925 corresponds to a gene encoding a

polypeptide comprising a forkhead domain. The forkhead domain (also known as a "winged helix") is present in a family of eukaryotic transcription factors, and is a conserved domain of about 100 amino acid residues that is involved in DNA-binding (Weigel *et al. Cell* (1990) 63:455-456;

Clark *et al. Nature* (1993) 364:412-420). Mammalian genes that comprise a forkhead domain include those encoding: 1) transcriptional activators (*e.g.*, HNF-3-alpha, -beta, and -gamma proteins, which interact with the cis-acting regulatory regions of a number of liver genes); 2) interleukin-enhancer binding factor (ILF), which binds to purine-rich NFAT-like motifs in the HIV-1 LTR and the interleukin-2 promoter and is involved in both positive and negative regulation of important viral and cellular promoter elements; 3) transcription factor BF-1, which plays an important role in the establishment of the regional subdivision of the developing brain and in the development of the telencephalon; 4) human HTLF, which binds to the purine-rich region in human T-cell leukemia virus long terminal repeat (HTLV-I LTR); 5) transcription factors FREAC-1 (FKHL5, HFH-8), FREAC-2 (FKHL6), FREAC-3 (FKHL7, FKH-1), FREAC-4 (FKHL8), FREAC-5 (FKHL9, FKH-2, HFH-6), FREAC-6 (FKHL10, HFH-5), FREAC-7 (FKHL11), FREAC-8 (FKHL12, HFH-7), FKH-3, FKH-4, FKH-5, HFH-1 and HFH-4; 6) human AFX1 which is involved in a chromosomal translocation that causes acute leukemia; and 7) human FKHR which is involved in a chromosomal translocation that causes rhabdomyosarcoma. The fork domain is highly conserved, and is detected by two consensus patterns: the first corresponding to the N-terminal section of the domain; the second corresponding to a heptapeptide located in the central section of the domain. The consensus patterns are as follows: 1) [KR]-P-[PTQ]-[FYLVQH]-S-[FY]-x(2)-[LIVM]-x(3,4)-[AC]-[LIM]; and 2) W-[QKR]-[NS]-S-[LIV]-R-H.

Helicases conserved C-terminal domain (helicase C; Pfam Accession No. PF00271). SEQ ID NOS:227 and 1058 represent polynucleotides encoding novel members of the DEAD/H helicase family. The DEAD box family comprises a number of eukaryotic and prokaryotic proteins involved in ATP-dependent, nucleic-acid unwinding. All DEAD box family members of the above proteins share a number of conserved sequence motifs, some of which are specific to the DEAD family while others are shared by other ATP-binding proteins or by proteins belonging to the helicases 'superfamily' (Hodgman, *Nature* (1988) 333:22 and *Nature* (1988) 333:578; [http://www.expasy.ch/www/linder/HELICASES\\_TEXT.html](http://www.expasy.ch/www/linder/HELICASES_TEXT.html)). One of these motifs, called the 'D-E-A-D-box', represents a special version of the B motif of ATP-binding proteins. Some other proteins belong to a subfamily which have His instead of the second Asp and are thus said to be 'D-E-A-H-box' proteins (Wassarman D.A., et al., *Nature* (1991) 349:463; Harosh I., et al., *Nucleic Acids Res.* (1991) 19:6331; Koonin E.V., et al., *J. Gen. Virol.* (1992) 73:989; [http://www.expasy.ch/www/linder/HELICASES\\_TEXT.html](http://www.expasy.ch/www/linder/HELICASES_TEXT.html)). The following signature patterns are used to identify member for both subfamilies: 1) [LIVMF](2)-D-E-A-D-[RKEN]-x-[LIVMFYGSTN]; and 2) [GSAH]-x-[LIVMF](3)-D-E-[ALIV]-H-[NECR].

Kazal serine protease inhibitors family signature (Kazal; Pfam Accession No. PF00050). SEQ ID NO:97 corresponds to a polynucleotide of a gene encoding a serine protease inhibitor of the

Kazal inhibitor family (Laskowski *et al. Annu. Rev. Biochem.* (1980) 49:593-626). The basic structure of Kazal serine protease inhibitors such a type of inhibitor is described at Pfam Accession No. PF00050. Exemplary proteins known to belong to this family include: pancreatic secretory trypsin inhibitor (PSTI), whose physiological function is to prevent the trypsin-catalyzed premature  
5 activation of zymogens within the pancreas; mammalian seminal acrosin inhibitors; canidae and felidae submandibular gland double-headed protease inhibitors, which contain two Kazal-type domains, the first one inhibits trypsin and the second one elastase; a mouse prostatic secretory glycoprotein, induced by androgens, and which exhibits anti-trypsin activity; avian ovomucoids; chicken ovoidinhibitor; and the leech trypsin inhibitor BdeLLin B-3. The consensus pattern is as  
10 follows: C-x(7)-C-x(6)-Y-x(3)-C-x(2,3)-C, where the four C's are involved in disulfide bonds.

MAP kinase kinase (mkk). SEQ ID NOS:635 and 992 represent members of the MAP kinase kinase (mkk) family. MAP kinases (MAPK) are involved in signal transduction, and are important in cell cycle and cell growth controls. The MAP kinase kinases (MAPKK) are dual-specificity protein kinases which phosphorylate and activate MAP kinases. MAPKK homologues  
15 have been found in yeast, invertebrates, amphibians, and mammals. Moreover, the MAPKK/MAPK phosphorylation switch constitutes a basic module activated in distinct pathways in yeast and in vertebrates. MAPKKs are essential transducers through which signals must pass before reaching the nucleus. For review, see, *e.g.*, Biologique *Biol Cell* (1993) 79:193-207; Nishida *et al.*, *Trends Biochem Sci* (1993) 18:128-31; Ruderman *Curr Opin Cell Biol* (1993) 5:207-13; Dhanasekaran *et al.*, *Oncogene* (1998) 17:1447-55; Kiefer *et al.*, *Biochem Soc Trans* (1997) 25:491-8; and Hill, *Cell Signal* (1996) 8:533-44.  
20

Neurotransmitter-Gated Ion-Channel (neur\_chan; Pfam Accession No. PF00065). SEQ ID NO:1078 corresponds to a sequence encoding a neurotransmitter-gated ion channel. Neurotransmitter-gated ion-channels, which provide the molecular basis for rapid signal  
25 transmission at chemical synapses, are post-synaptic oligomeric transmembrane complexes that transiently form a ionic channel upon the binding of a specific neurotransmitter. Five types of neurotransmitter-gated receptors are known: 1) nicotinic acetylcholine receptor (AChR); 2) glycine receptor; 3) gamma-aminobutyric-acid (GABA) receptor; 4) serotonin 5HT3 receptor; and 5) glutamate receptor. All known sequences of subunits from neurotransmitter-gated ion-channels are  
30 structurally related, and are composed of a large extracellular glycosylated N-terminal ligand-binding domain, followed by three hydrophobic transmembrane regions that form the ionic channel, followed by an intracellular region of variable length. A fourth hydrophobic region is found at the C-terminal of the sequence. The consensus pattern is: C-x-[LIVMFQ]-x-[LIVMF]-x(2)-[FY]-P-x-D-x(3)-C, where the two C's are linked by a disulfide bond.

PDZ Domain (PDZ; Pfam Accession No. PF00595.) SEQ ID NOS:523 and 980 correspond to a gene comprising a PDZ domain (also known as DHR or GLGF domain). PDZ domains comprise 80-100 residue repeats, several of which interact with the C-terminal tetrapeptide motifs X-Ser/Thr-X-Val-COO- of ion channels and/or receptors, and are found in mammalian proteins as well as in bacteria, yeast, and plants (Pontig *et al. Protein Sci* (1997) 6(2):464-8). Proteins comprising one or more PDZ domains are found in diverse membrane-associated proteins, including members of the MAGUK family of guanylate kinase homologues, several protein phosphatases and kinases, neuronal nitric oxide synthase, and several dystrophin-associated proteins, collectively known as syntrophins (Ponting *et al. Bioessays* (1997) 19(6):469-79). Many PDZ domain-containing proteins are localised to highly specialised submembranous sites, suggesting their participation in cellular junction formation, receptor or channel clustering, and intracellular signalling events. For example, PDZ domains of several MAGUKs interact with the C-terminal polypeptides of a subset of NMDA receptor subunits and/or with Shaker-type K<sup>+</sup> channels. Other PDZ domains have been shown to bind similar ligands of other transmembrane receptors. In cell junction-associated proteins, the PDZ mediates the clustering of membrane ion channels by binding to their C-terminus. The X-ray crystallographic structure of some proteins comprising PDZ domains have been solved (see, *e.g.*, Doyle *et al. Cell* (1996) 85(7):1067-76).

Protein phosphatase 2A regulatory subunit PR55 signatures (PR55; Pfam Accession No. PF01240). SEQ ID NO:1028 corresponds to a gene encoding a protein phosphatase 2A regulatory subunit. Protein phosphatase 2A (PP2A) is a serine/threonine phosphatase involved in many aspects of cellular function including the regulation of metabolic enzymes and proteins involved in signal transduction. PP2A is a trimeric enzyme that consists of a core composed of a catalytic subunit associated with a 65 Kd regulatory subunit (PR65), also called subunit A; this complex then associates with a third variable subunit (subunit B), which confers distinct properties to the holoenzyme (Mayer *et al. Trends Cell Biol.* (1994) 4:287-291). One of the forms of the variable subunit is a 55 Kd protein (PR55) which is highly conserved in mammals (where three isoforms are known to exist). This subunit may perform a substrate recognition function or be responsible for targeting the enzyme complex to the appropriate subcellular compartment. Two perfectly conserved sequences of 15 residues, one located in the N-terminal region, the other in the center of the protein, serve as the basis for the consensus patterns: 1) E-F-D-Y-L-K-S-L-E-I-E-E-K-I-N; 2) N-[AG]-H-[TA]-Y-H-I-N-S-I-S-[LIVM]-N-S-D

Protein Kinase (prokinase; Pfam Accession No. PF00069). SEQ ID NOS:635, 992, and 1078 represent polynucleotides encoding protein kinases, which catalyze phosphorylation of proteins in a variety of pathways, and are implicated in cancer. Eukaryotic protein kinases (Hanks, *et al., FASEB J.* (1995) 9:576; Hunter, *Meth. Enzymol.* (1991) 200:3; Hanks, *et al., Meth. Enzymol.*

(1991) 200:38; Hanks, *Curr. Opin. Struct. Biol.* (1991) 1:369; Hanks *et al.*, *Science* (1988) 241:42) belong to a very extensive family of proteins that share a conserved catalytic core common to both serine/threonine and tyrosine protein kinases. There are a number of conserved regions in the catalytic domain of protein kinases. The first region, located in the N-terminal extremity of the catalytic domain, is a glycine-rich stretch of residues in the vicinity of a lysine residue, which has been shown to be involved in ATP binding. The second region, located in the central part of the catalytic domain, contains a conserved aspartic acid residue that is important for the catalytic activity of the enzyme (Knighton, *et al.*, *Science* (1991) 253:407).

The protein kinase profile includes two signature patterns for this second region: one specific for serine/threonine kinases and the other for tyrosine kinases. A third profile is based on the alignment in (Hanks, *et al.*, *FASEB J.* (1995) 9:576) and covers the entire catalytic domain. The consensus patterns are as follows: 1) [LIV]-G-{P}-G-{P}-[FYWMGSTNH]-[SGA]-{PW}-[LIVCAT]-{PD}-x-[GSTACLIVMFY]-x(5,18)-[LIVMFYWCSTAR]-[AIVP]-[LIVMFAGCKR]-K, where K binds ATP; 2) [LIVMFYC]-x-[HY]-x-D-[LIVMFY]-K-x(2)-N-[LIVMFYCT](3), where D is an active site residue; and 3) [LIVMFYC]-x-[HY]-x-D-[LIVMFY]-[RSTAC]-x(2)-N-[LIVMFYC], where D is an active site residue.

Ras family proteins (ras; Pfam Accession No. PF00071). SEQ ID NO:527 represents polynucleotides encoding the ras family of small GTP/GDP-binding proteins (Valencia *et al.*, 1991, *Biochemistry* 30:4637-4648). Ras family members generally require a specific guanine nucleotide exchange factor (GEF) and a specific GTPase activating protein (GAP) as stimulators of overall GTPase activity. Among ras-related proteins, the highest degree of sequence conservation is found in four regions that are directly involved in guanine nucleotide binding. The first two constitute most of the phosphate and Mg<sup>2+</sup> binding site (PM site) and are located in the first half of the G-domain. The other two regions are involved in guanosine binding and are located in the C-terminal half of the molecule. Motifs and conserved structural features of the ras-related proteins are described in Valencia *et al.*, 1991, *Biochemistry* 30:4637-4648. A major consensus pattern of ras proteins is: D-T-A-G-Q-E-K-[LF]-G-G-L-R-[DE]-G-Y-Y.

Src homology domain 3 (SH3; Pfam Accession No. PF00018). SEQ IDNO:450 corresponds to a gene comprising a Src homology domain. The Src homology 3 (SH3) domain is a small protein domain of about 60 amino acid residues first identified as a conserved sequence in the non-catalytic part of several cytoplasmic protein tyrosine kinases (e.g. Src, Abl, Lck) (Mayer *et al.* *Nature* (1988) 332:272-275). Since then, it has been found in a great variety of other intracellular or membrane-associated proteins (Musacchio *et al.* *FEBS Lett.* (1992) 307:55-61; Pawson *et al.* *Curr. Biol.* (1993) 3:434-442; Mayer *et al.* *Trends Cell Biol.* (1993) 3:8-13; Pawson *Nature* (1995) 373:573-580). The SH3 domain has a characteristic fold which consists of five or six

beta-strands arranged as two tightly packed anti-parallel beta sheets. The linker regions may contain short helices (Kuriyan *et al. Curr. Opin. Struct. Biol.* (1993) 3:828-837). The SH3 domain is thought to mediate assembly of specific protein complexes via binding to proline-rich peptides (Morton *et al. Curr. Biol.* (1994) 4:615-617). In general SH3 domains are found as single copies in a given protein, but there a significant number of proteins comprise two SH3 domains and a few comprise 3 or 4 copies. The profile to detect SH3 domains is based on a structural alignment consisting of 5 gap-free blocks and 4 linker regions totaling 62 match positions.

Trypsin (trypsin; Pfam Accession No. PF00089). SEQ ID NOS:635, 995, and 984 correspond to novel serine proteases of the trypsin family. The catalytic activity of the serine proteases from the trypsin family is provided by a charge relay system involving an aspartic acid residue hydrogen-bonded to a histidine, which itself is hydrogen-bonded to a serine. The sequences in the vicinity of the active site serine and histidine residues are well conserved (Brenner *Nature* (1988) 334:528). The consensus patterns for the trypsin protein family are: 1) [LIVM]-[ST]-A-[STAG]-H-C, where H is the active site residue; and 2) [DNSTAGC]-[GSTAPIMVQH]-x(2)-G-[DE]-S-G-[GS]-[SAPHV]-[LIVMFYWH]-[LIVMFYSTANQH], where S is the active site residue. All sequences known to belong to this family are detected by the above consensus sequences, except for 18 different proteases which have lost the first conserved glycine. If a protein includes both the serine and the histidine active site signatures, the probability of it being a trypsin family serine protease is 100%.

WD Domain, G-Beta Repeats (WD\_domain; Pfam Accession No. PF00400) SEQ ID NOS:505, 721, and 1018 represent a members of the WD domain/G-beta repeat family. Beta-transducin (G-beta) is one of the three subunits (alpha, beta, and gamma) of the guanine nucleotide-binding proteins (G proteins) which act as intermediaries in the transduction of signals generated by transmembrane receptors (Gilman, *Annu. Rev. Biochem.* (1987) 56:615). The alpha subunit binds to and hydrolyzes GTP; the beta and gamma subunits are required for the replacement of GDP by GTP as well as for membrane anchoring and receptor recognition. In higher eukaryotes, G-beta exists as a small multigene family of highly conserved proteins of about 340 amino acid residues. Structurally, G-beta has eight tandem repeats of about 40 residues, each containing a central Trp-Asp motif (this type of repeat is sometimes called a WD-40 repeat). The consensus pattern for the WD domain/G-Beta repeat family is: [LIVMSTAC]-[LIVMFYWSTAGC]-[LIMSTAG]-[LIVMSTAGC]-x(2)-[DN]-x(2)-[LIVMWSTAC]-x-[LIVMFSTAG]-W-[DEN]-[LIVMFSTAGCN].

WW/rsp5/WWP domain signature and profile (WW domain; Pfam Accession No. PF00397). SEQ ID NO:606 corresponds to a gene encoding a protein comprising a WW domain. The WW domain (Bork *et al. Trends Biochem. Sci.* (1994) 19:531-533; Andre *et al. Biochem. Biophys. Res. Commun.* (1994) 205:1201-1205; Hofmann *et al. FEBS Lett.* (1995) 358:153-157;



Sudol *et al. FEBS Lett.* (1995) 369:67-71; <http://www.bork.embl-heidelberg.de/Modules/ww-gif.html>) (also known as rsp5 or WWP) was discovered as a short conserved region in a number of unrelated proteins, among them dystrophin, the gene responsible for Duchenne muscular dystrophy. The domain, which spans about 35 residues, is repeated up to 4 times in some proteins. It has been shown (Chen *et al. Proc. Natl. Acad. Sci. U.S.A.* (1995) 92:7819-7823) to bind proteins with particular proline-motifs, [AP]-P-P-[AP]-Y, and thus resembles somewhat SH3 domains. The WW domain contains beta-strands grouped around four conserved aromatic positions, generally tryptophan. The name WW or WWP derives from the presence of two tryptophane as well as a conserved proline. The WW domain is frequently associated with other domains typical for proteins in signal transduction processes. The consensus pattern for WW domains is: W-x(9,11)-[VFY]-[FYW]-x(6,7)-[GSTNE]-[GSTQCR]-[FYW]-x(2)-P.

Zinc Finger, C2H2 Type (Zincfing C2H2; Pfam Accession No. PF00096). Several sequences corresponded to polynucleotides encoding members of the C2H2 type zinc finger protein family, which contain zinc finger domains that facilitate nucleic acid binding (Klug *et al., Trends Biochem. Sci.* (1987) 12:464; Evans *et al., Cell* (1988) 52:1; Payre *et al., FEBS Lett.* (1988) 234:245; Miller *et al., EMBO J.* (1985) 4:1609; and Berg, *Proc. Natl. Acad. Sci. USA* (1988) 85:99). In addition to the conserved zinc ligand residues, a number of other positions are also important for the structural integrity of the C2H2 zinc fingers. (Rosenfeld *et al., J. Biomol. Struct. Dyn.* (1993) 11:557) The best conserved position, which is generally an aromatic or aliphatic residue, is located four residues after the second cysteine. The consensus pattern for C2H2 zinc fingers is: C-x(2,4)-C-x(3)-[LIVMFYWC]-x(8)-H-x(3,5)-H. The two C's and two H's are zinc ligands.

Zinc finger, C3HC4 type (RING finger), signature (Zincfing C3H4; Pfam Accession No. PF00097). SEQ ID NOS:805 and 1078 represent polynucleotides encoding a polypeptide having a C3HC4 type zinc finger signature. A number of eukaryotic and viral proteins contain this signature, which is primarily a conserved cysteine-rich domain of 40 to 60 residues (Borden K.L.B., *et al., Curr. Opin. Struct. Biol.* (1996) 6:395) that binds two atoms of zinc, and is probably involved in mediating protein-protein interactions. The 3D structure of the zinc ligation system is unique to the RING domain and is referred to as the "cross-brace" motif. The spacing of the cysteines in such a domain is C-x(2)-C-x(9 to 39)-C-x(1 to 3)-H-x(2 to 3)-C-x(2)-C-x(4 to 48)-C-x(2)-C. The signature pattern for the C3HC4 finger is based on the central region of the domain: C-x-H-x-[LIVMFY]-C-x(2)-C-[LIVMYA].

Zinc finger, CCHC type (Zincfing CCHC; Pfam Accession No. PF00098). SEQ ID NOS:693,973, and 1078 correspond to genes encoding a member of the family of CCHC zinc fingers. Because the prototype CCHC type zinc finger structure is from an HIV protein, this domain

is also referred to as a retroviral-type zinc finger domain. The family also contains proteins involved in eukaryotic gene regulation, such as *C. elegans* GLH-1. The structure is an 18-residue zinc finger; no examples of indels in the alignment. The motif that defines a CCHC type zinc finger domain is: C-X2-C-X4-H-X4-C (Summers *J Cell Biochem* 1991 Jan;45(1):41-8). The domain is found in, for example, HIV-1 nucleocapsid protein, Moloney murine leukemia virus nucleocapsid protein NCp10 (De Rocquigny *et al. Nucleic Acids Res.* (1993) 21:823-9), and myelin transcription factor 1 (Myt1) (Kim *et al. J. Neurosci. Res.* (1997) 50:272-90).

**Example 5: Differential Expression of Polynucleotides of the Invention: Description of Libraries and Detection of Differential Expression**

The relative expression levels of the polynucleotides of the invention was assessed in several libraries prepared from various sources, including cell lines and patient tissue samples. Table 4 provides a summary of these libraries, including the shortened library name (used hereafter), the mRNA source used to prepare the cDNA library, the "nickname" of the library that is used in the tables below (in quotes), and the approximate number of clones in the library.

**Table 4.** Description of cDNA Libraries

Library (lib #)	Description	Number of Clones in Library
1	Human Colon Cell Line Km12 L4: High Metastatic Potential (derived from Km12C)	308731
2	Human Colon Cell Line Km12C: Low Metastatic Potential	284771
3	Human Breast Cancer Cell Line MDA-MB-231: High Metastatic Potential; micro-mets in lung	326937
4	Human Breast Cancer Cell Line MCF7: Non Metastatic	318979
8	Human Lung Cancer Cell Line MV-522: High Metastatic Potential	223620
9	Human Lung Cancer Cell Line UCP-3: Low Metastatic Potential	312503
12	Human microvascular endothelial cells (HMVEC) - UNTREATED (PCR (OligodT) cDNA library)	41938
13	Human microvascular endothelial cells (HMVEC) - bFGF TREATED (PCR (OligodT) cDNA library)	42100
14	Human microvascular endothelial cells (HMVEC) - VEGF TREATED (PCR (OligodT) cDNA library)	42825
15	Normal Colon - UC#2 Patient (MICRODISSECTED PCR (OligodT) cDNA library)	282722
16	Colon Tumor - UC#2 Patient (MICRODISSECTED PCR (OligodT) cDNA library)	298831
17	Liver Metastasis from Colon Tumor of UC#2 Patient (MICRODISSECTED PCR (OligodT) cDNA library)	303467
18	Normal Colon - UC#3 Patient (MICRODISSECTED PCR	36216

Library (lib #)	Description	Number of Clones in Library
	(OligodT) cDNA library)	
19	Colon Tumor - UC#3 Patient (MICRODISSECTED PCR (OligodT) cDNA library)	41388
20	Liver Metastasis from Colon Tumor of UC#3 Patient (MICRODISSECTED PCR (OligodT) cDNA library)	30956
21	GRRpz Cells derived from normal prostate epithelium	164801
22	WOca Cells derived from Gleason Grade 4 prostate cancer epithelium	162088
23	Normal Lung Epithelium of Patient #1006 (MICRODISSECTED PCR (OligodT) cDNA library)	306198
24	Primary tumor, Large Cell Carcinoma of Patient #1006 (MICRODISSECTED PCR (OligodT) cDNA library)	309349

The KM12L4, KM12C, and MDA-MB-231 cell lines are described in Example 1 above. The MCF7 cell line was derived from a pleural effusion of a breast adenocarcinoma and is non-metastatic. The MV-522 cell line is derived from a human lung carcinoma and is of high metastatic potential. The UCP-3 cell line is a low metastatic human lung carcinoma cell line; the MV-522 is a high metastatic variant of UCP-3. These cell lines are well-recognized in the art as models for the study of human breast and lung cancer (see, e.g., Chandrasekaran *et al.*, *Cancer Res.* (1979) 39:870 (MDA-MB-231 and MCF-7); Gastpar *et al.*, *J Med Chem* (1998) 41:4965 (MDA-MB-231 and MCF-7); Ranson *et al.*, *Br J Cancer* (1998) 77:1586 (MDA-MB-231 and MCF-7); Kuang *et al.*, *Nucleic Acids Res* (1998) 26:1116 (MDA-MB-231 and MCF-7); Varki *et al.*, *Int J Cancer* (1987) 40:46 (UCP-3); Varki *et al.*, *Tumour Biol.* (1990) 11:327; (MV-522 and UCP-3); Varki *et al.*, *Anticancer Res.* (1990) 10:637; (MV-522); Kelner *et al.*, *Anticancer Res* (1995) 15:867 (MV-522); and Zhang *et al.*, *Anticancer Drugs* (1997) 8:696 (MV522)). The samples of libraries 15-20 are derived from two different patients (UC#2, and UC#3). The bFGF-treated HMVEC were prepared by incubation with bFGF at 10ng/ml for 2 hrs; the VEGF-treated HMVEC were prepared by incubation with 20ng/ml VEGF for 2 hrs. Following incubation with the respective growth factor, the cells were washed and lysis buffer added for RNA preparation. The GRRpz and WOca cell lines were provided by Dr. Donna M. Peehl, Department of Medicine, Stanford University School of Medicine. GRRpz was derived from normal prostate epithelium. The WOca cell line is a Gleason Grade 4 cell line.

Each of the libraries is composed of a collection of cDNA clones that in turn are representative of the mRNAs expressed in the indicated mRNA source. In order to facilitate the analysis of the millions of sequences in each library, the sequences were assigned to clusters. The concept of "cluster of clones" is derived from a sorting/grouping of cDNA clones based on their

hybridization pattern to a panel of roughly 300 7bp oligonucleotide probes (see Drmanac *et al.*,  
*Genomics* (1996) 37(1):29). Random cDNA clones from a tissue library are hybridized at moderate  
stringency to 300 7bp oligonucleotides. Each oligonucleotide has some measure of specific  
hybridization to that specific clone. The combination of 300 of these measures of hybridization for  
5 300 probes equals the "hybridization signature" for a specific clone. Clones with similar sequence  
will have similar hybridization signatures. By developing a sorting/grouping algorithm to analyze  
these signatures, groups of clones in a library can be identified and brought together  
computationally. These groups of clones are termed "clusters". Depending on the stringency of the  
selection in the algorithm (similar to the stringency of hybridization in a classic library cDNA  
10 screening protocol), the "purity" of each cluster can be controlled. For example, artifacts of  
clustering may occur in computational clustering just as artifacts can occur in "wet-lab" screening of  
a cDNA library with 400 bp cDNA fragments, at even the highest stringency. The stringency used  
in the implementation of cluster herein provides groups of clones that are in general from the same  
cDNA or closely related cDNAs. Closely related clones can be a result of different length clones of  
15 the same cDNA, closely related clones from highly related gene families, or splice variants of the  
same cDNA.

Differential expression for a selected cluster was assessed by first determining the number  
of cDNA clones corresponding to the selected cluster in the first library (Clones in 1<sup>st</sup>), and the  
determining the number of cDNA clones corresponding to the selected cluster in the second library  
20 (Clones in 2<sup>nd</sup>). Differential expression of the selected cluster in the first library relative to the  
second library is expressed as a "ratio" of percent expression between the two libraries. In general,  
the "ratio" is calculated by: 1) calculating the percent expression of the selected cluster in the first  
library by dividing the number of clones corresponding to a selected cluster in the first library by the  
total number of clones analyzed from the first library; 2) calculating the percent expression of the  
25 selected cluster in the second library by dividing the number of clones corresponding to a selected  
cluster in a second library by the total number of clones analyzed from the second library; 3)  
dividing the calculated percent expression from the first library by the calculated percent expression  
from the second library. If the "number of clones" corresponding to a selected cluster in a library is  
zero, the value is set at 1 to aid in calculation. The formula used in calculating the ratio takes into  
30 account the "depth" of each of the libraries being compared, *i.e.*, the total number of clones analyzed  
in each library.

In general, a polynucleotide is said to be significantly differentially expressed between two  
samples when the ratio value is greater than at least about 2, preferably greater than at least about 3,  
more preferably greater than at least about 5, where the ratio value is calculated using the method  
35 described above. The significance of differential expression is determined using a z score test (Zar,

Biostatistical Analysis, Prentice Hall, Inc., USA, "Differences between Proportions," pp 296-298 (1974).

Examples 6-11: Differential Expression of Polynucleotides of the Invention

5           A number of polynucleotide sequences have been identified that are differentially expressed between, for example, cells derived from high metastatic potential cancer tissue and low metastatic cancer cells, and between cells derived from metastatic cancer tissue and normal tissue. Evaluation of the levels of expression of the genes corresponding to these sequences can be valuable in diagnosis, prognosis, and/or treatment (*e.g.*, to facilitate rationale design of therapy, monitoring  
10 during and after therapy, *etc.*). Moreover, the genes corresponding to differentially expressed sequences described herein can be therapeutic targets due to their involvement in regulation (*e.g.*, inhibition or promotion) of development of, for example, the metastatic phenotype. For example, sequences that correspond to genes that are increased in expression in high metastatic potential cells relative to normal or non-metastatic tumor cells may encode genes or regulatory sequences involved  
15 in processes such as angiogenesis, differentiation, cell replication, and metastasis.

Detection of the relative expression levels of differentially expressed polynucleotides described herein can provide valuable information to guide the clinician in the choice of therapy. For example, a patient sample exhibiting an expression level of one or more of these polynucleotides that corresponds to a gene that is increased in expression in metastatic or high  
20 metastatic potential cells may warrant more aggressive treatment for the patient. In contrast, detection of expression levels of a polynucleotide sequence that corresponds to expression levels associated with that of low metastatic potential cells may warrant a more positive prognosis than the gross pathology would suggest.

A number of polynucleotide sequences of the present invention are differentially expressed  
25 between human microvascular endothelial cells (HMVEC) that have been treated with growth factors relative to untreated HMVEC. Sequences that are differentially expressed between growth factor-treated HMVEC and untreated HMVEC can represent sequences encoding gene products involved in angiogenesis, metastasis (cell migration), and other development and oncogenic processes. For example, sequences that are more highly expressed in HMVEC treated with growth  
30 factors (such as bFGF or VEGF) relative to untreated HMVEC can serve as drug targets for chemotherapeutics, *e.g.*, decreasing expression of such up-regulated genes or inhibiting the activity of the encoded gene product would serve to inhibit tumor cell angiogenesis. Detection of expression of these sequences in colon cancer tissue can be valuable in determining diagnostic, prognostic and/or treatment information associated with the prevention of achieving the malignant  
35 state in these tissues, and can be important in risk assessment for a patient. A patient sample

displaying an increased level of one or more of these polynucleotides may thus warrant closer attention or more frequent screening procedures to catch the malignant state as early as possible.

The differential expression of the polynucleotides described herein can thus be used as, for example, diagnostic markers, prognostic markers, for risk assessment, patient treatment and the like.

5 These polynucleotide sequences can also be used in combination with other known molecular and/or biochemical markers. The following examples provide relative expression levels of polynucleotides from specified cell lines and patient tissue samples.

**Example 6: High Metastatic Potential Breast Cancer Versus Low Metastatic Breast Cancer Cells**

10 The tables bellow summarize the data for polynucleotides that represent genes differentially expressed between high metastatic potential and low metastatic potential breast cancer cells.

**Table 5. High metastatic potential breast (lib3) > low metastatic potential breast cancer cells (lib4)**

SEQ ID NO:	Lib 3 Clones	Lib4 Clones	Lib3/Lib4
781	13	0	12.68
778	9	0	8.78
756	8	0	7.81
779	7	0	6.83
691	7	0	6.83
686	7	0	6.83
916	6	0	5.85

15 **Table 6. Low metastatic potential breast (lib4) > high metastatic potential breast cancer cells (lib3)**

Table 6			
SEQ ID NO:	Lib 3 Clones	Lib4 Clones	Lib4/Lib3
558	0	340	348.48
656	0	64	65.6
661	0	57	58.42
647	0	43	44.07
547	0	41	42.02
648	0	40	41
592	4	115	29.47
654	0	28	28.7
646	0	21	21.52
636	3	61	20.84
533	1	17	17.42
549	0	17	17.42
650	3	50	17.08
589	0	16	16.4
110	0	16	16.4
657	0	16	16.4
624	0	16	16.4
637	0	13	13.32

Table 6			
SEQ ID NO:	Lib 3 Clones	Lib4 Clones	Lib4/Lib3
536	0	12	12.3
653	1	11	11.27
562	1	11	11.27
587	1	11	11.27
609	1	11	11.27
590	0	10	10.25
641	0	10	10.25
532	1	10	10.25
623	0	9	9.22
591	0	8	8.2
521	0	8	8.2
214	0	7	7.17
607	0	7	7.17
554	0	7	7.17
555	0	7	7.17
582	0	7	7.17
584	0	7	7.17
599	0	7	7.17
561	0	6	6.15
572	0	6	6.15
359	0	6	6.15
635	0	6	6.15
113	0	6	6.15
603	0	6	6.15

**Example 7: High Metastatic Potential Lung Cancer Versus Low Metastatic Lung Cancer Cells**

The following summarizes polynucleotides that represent genes differentially expressed between high metastatic potential lung cancer cells and low metastatic potential lung cancer cells:

5

**Table 7.** High metastatic potential lung (lib8) > low metastatic potential lung cancer cells (lib9)

SEQ ID NO:	Lib 8 Clones	Lib 9 Clones	Lib8/Lib9
571	35	1	48.91
969	8	0	11.18
350	5	0	6.99

**Example 8: High Metastatic Potential Colon Cancer Versus Low Metastatic Colon Cancer Cells**

Table 8 summarizes polynucleotides that represent genes differentially expressed between high metastatic potential and low metastatic potential colon cancer cells:

10

**Table 8.** Low metastatic potential colon (lib2) > high metastatic potential colon cancer cells (lib1)

SEQ ID NO:	Lib1 Clones	Lib2 Clones	Lib2/Lib1
57	0	8	8.67

103	0	6	6.5
189	0	6	6.5

**Example 9: High Tumor Potential Colon Tissue Vs. Metastasized Colon Cancer Tissue**

The following table summarizes polynucleotides that represent genes differentially expressed between high tumor potential colon cancer cells and cells derived from high metastatic potential colon cancer cells of a patient.

**Table 9.** High tumor potential colon tissue (lib16) vs. high metastatic colon tissue (lib17)

SEQ ID NO:	Lib 16 Clones	Lib 17 Clones	Lib17/Lib16
100	0	7	6.89
370	3	12	3.94

**Example 10: Differential Expression Across Multiple Libraries**

A number of polynucleotide sequences have been identified that represent genes that are differentially expressed across multiple libraries. Expression of these sequences in a tissue or any origin can be valuable in determining diagnostic, prognostic and/or treatment information associated with the prevention of achieving the malignant state in these tissues, and can be important in risk assessment for a patient. These polynucleotides can also serve as non-tissue specific markers of, for example, risk of metastasis of a tumor. The differential expression data for these sequences is provided in Table 10 below.

**Table 10.** Genes Differentially Expressed Across Multiple Library Comparisons

SEQ ID NO:	Cell or Tissue Sample and Cancer State Compared	RATIO
34	Low Met Colon (lib2) > High Met Colon (lib1)	8.67
34	High Met Breast (lib3) > Low Met Breast (Lib4)	5.85
209	Low Met Lung (lib9) > High Met Lung (lib8)	17.44
209	Colon Tumor Tissue (lib16) > Normal Colon Tissue (lib15)	3.42
209	Colon Tumor Tissue (lib19) > Normal Colon Tissue (lib18)	66.5
209	High Met Colon Tissue (lib20) > Normal Colon Tissue (lib18)	14.04
209	Colon Tumor Tissue (lib19) > High Met Colon Tissue (lib20)	4.74
316	High Met Colon (lib1) > Low Met Colon (lib2)	5.76
316	Low Met Breast (lib4) > High Met Breast (Lib3)	17.28
645	Low Met Breast (lib4) > High Met Breast (Lib3)	6.15



SEQ ID NO:	Cell or Tissue Sample and Cancer State Compared	RATIO
645	High Met Lung (lib8) > Low Met Lung (lib9)	19.56
854	High Met Breast (lib3) > Low Met Breast (Lib4)	9.76
854	HMVEC-bFGF (lib13) > HMVEC (lib12)	4.98
854	Lung Tumor Tissue (lib24) > Normal Lung Tissue (lib23)	5.94

Key for Table 10: High Met = high metastatic potential; Low Met = low metastatic potential; met = metastasized; tumor = non-metastasized tumor; HMVEC = human microvascular endothelial cell; bFGF = bFGF treated.

5 Detection of expression of genes that correspond to the above polynucleotides may be of particular interest in diagnosis, prognosis, risk assesment, and monitoring of treatment. Furthermore, differential expression of a specific gene across multiple libraries can also be indicative of a gene whose expression is associated with, for example, suppression of the metastatic phenotype or with development of the cell toward a metastatic phenotype. For example, SEQ ID NO:209 corresponds to a gene that is expressed at relatively higher levels in colon tumor tissue than in high metastatic potential colon tumor tissue, and at relatively higher levels in high metastatic potential colon tumor tissue than in normal colon tissue. Thus a relatively increased level of expression of the gene corresponding to SEQ ID NO:209 may be used as marker of a pre-metastatic colon cells either alone or in combination with other markers.

15 Some polynucleotides exhibited opposite differential expression trends in libraries of different origin (see, *e.g.*, SEQ ID NO:316). These data suggest that the differential expression patterns of some gene associated with development of metastases indicate a unique role for those genes specific for the tissue of origin.

20 Those skilled in the art will recognize, or be able to ascertain, using not more than routine experimentation, many equivalents to the specific embodiments of the invention described herein. Such specific embodiments and equivalents are intended to be encompassed by the following claims.

25 All publications and patent applications cited in this specification are herein incorporated by reference as if each individual publication or patent application were specifically and individually indicated to be incorporated by reference. The citation of any publication is for its disclosure prior to the filing date and should not be construed as an admission that the present invention is not entitled to antedate such publication by virtue of prior invention.

Although the foregoing invention has been described in some detail by way of illustration

and example for purposes of clarity of understanding, it is readily apparent to those of ordinary skill in the art in light of the teachings of this invention that certain changes and modifications may be made thereto without departing from the spirit or scope of the appended claims.

- Deposit Information. The following materials were deposited with the American Type Culture Collection (CMCC = Chiron Master Culture Collection).

**Table 11.** Cell Lines Deposited with ATCC

Cell Line	Deposit Date	ATCC Accession No.	CMCC Accession No.
KM12L4-A	March 19, 1998	CRL-12496	11606
Km12C	May 15, 1998	CRL-12533	11611
MDA-MB-231	May 15, 1998	CRL-12532	10583
MCF-7	October 9, 1998	CRL-12584	10377

- In addition, pools of selected clones, as well as libraries containing specific clones, were assigned an "ES" number (internal reference) and deposited with the ATCC. Table 21 below provides the ATCC Accession Nos. of the ES deposits, all of which were deposited on or before May 13, 1999. The names of the clones contained within each of these deposits are provided in the tables numbered 22 and greater (inserted before the claims).

- Table 12:** Pools of Clones and Libraries Deposited with ATCC on or before September 23, 1999

Library No.	CMCC No.	ATCC Deposit No.	Library No.	CMCC No.	ATCC Deposit No.
ES55	5058		ES65	5068	
ES56	5059		ES66	5069	
ES57	5060		ES67	5070	
ES58	5061		ES68	5071	
ES59	5062		ES69	5072	
ES60	5063		ES70	5073	
ES61	5064		ES71	5074	
ES62	5065		ES72	5075	
ES63	5066		ES73	5076	
ES64	5067		ES74	5077	

- The deposits described herein are provided merely as convenience to those of skill in the art, and is not an admission that a deposit is required under 35 U.S.C. §112. The sequence of the polynucleotides contained within the deposited material, as well as the amino acid sequence of the polypeptides encoded thereby, are incorporated herein by reference and are controlling in the event of any conflict with the written description of sequences herein. A license may be required to make, use, or sell the deposited material, and no such license is granted hereby.

Retrieval of Individual Clones from Deposit of Pooled Clones. Where the ATCC deposit is composed of a pool of cDNA clones or a library of cDNA clones, the deposit was prepared by first transfecting each of the clones into separate bacterial cells. The clones in the pool or library were then deposited as a pool of equal mixtures in the composite deposit. Particular clones can be

5 obtained from the composite deposit using methods well known in the art. For example, a bacterial cell containing a particular clone can be identified by isolating single colonies, and identifying colonies containing the specific clone through standard colony hybridization techniques, using an oligonucleotide probe or probes designed to specifically hybridize to a sequence of the clone insert (*e.g.*, a probe based upon unmasked sequence of the encoded polynucleotide having the indicated

10 SEQ ID NO). The probe should be designed to have a  $T_m$  of approximately 80°C (assuming 2°C for each A or T and 4°C for each G or C). Positive colonies can then be picked, grown in culture, and the recombinant clone isolated. Alternatively, probes designed in this manner can be used to PCR to isolate a nucleic acid molecule from the pooled clones according to methods well known in the art, *e.g.*, by purifying the cDNA from the deposited culture pool, and using the probes in PCR

15 reactions to produce an amplified product having the corresponding desired polynucleotide sequence.

**Table 1A**

Priority Appln Information					
SEQ ID NO:	Filed	Dkt No.	SEQ ID NO:	Sequence Name	Clone Name
1	9/28/98	1492.001	1	RTA00000617F.o.18.2	M00005513A:H01
2	9/28/98	1492.001	2	RTA00001075F.h.12.1	M00005434A:F11
3	9/28/98	1492.001	3	RTA00001076F.m.09.1	M00006946B:C08
4	9/28/98	1492.001	4	RTA00001075F.o.08.1	M00005628D:A10
5	9/28/98	1492.001	5	RTA00001064F.f.14.1	M00005465A:A07
6	9/28/98	1492.001	6	RTA00001075F.n.19.1	M00005614A:B07
7	9/28/98	1492.001	7	RTA00001075F.i.24.1	M00005453B:B06
8	9/28/98	1492.001	8	RTA00001075F.p.24.1	M00005721D:B03
9	9/28/98	1492.001	9	RTA00001075F.o.04.1	M00005621B:C09
10	9/28/98	1492.001	10	RTA00000616F.j.04.1	M00005412D:G07
11	9/28/98	1492.001	11	RTA00001064F.k.01.1	M00005708C:D11
12	9/28/98	1492.001	12	RTA00001064F.j.19.1	M00005657B:F11
13	9/28/98	1492.001	13	RTA00001065F.a.22.1	M00006920B:H07
14	9/28/98	1492.001	14	RTA00001076F.d.11.1	M00006623C:G07
15	9/28/98	1492.001	15	RTA00000615F.e.08.2	M00004872A:D07
16	9/28/98	1492.001	16	RTA00000617F.p.05.2	M00005515D:G02
17	9/28/98	1492.001	17	RTA00001076F.f.03.1	M00006668D:B10
18	9/28/98	1492.001	18	RTA00001064F.l.17.2	M00006582A:F12
19	9/28/98	1492.001	19	RTA00001076F.h.13.1	M00006745B:C05
20	9/28/98	1492.001	20	RTA00001075F.k.12.1	M00005482A:D08
21	9/28/98	1492.001	21	RTA00001076F.c.09.1	M00006594B:D05
22	9/28/98	1492.001	22	RTA00001076F.l.16.1	M00006919A:H12
23	9/28/98	1492.001	23	RTA00001076F.b.13.1	M00005825A:A10
24	9/28/98	1492.001	24	RTA00001065F.d.06.2	M00007078B:H04
25	9/28/98	1492.001	25	RTA00001075F.p.23.1	M00005721C:A12
26	9/28/98	1492.001	26	RTA00001075F.n.22.1	M00005616B:E11
27	9/28/98	1492.001	27	RTA00001075F.o.21.1	M00005648C:E10
28	9/28/98	1492.001	28	RTA00001065F.b.22.1	M00006968A:H05
29	9/28/98	1492.001	29	RTA00001075F.p.06.1	M00005698A:H12
30	9/28/98	1492.001	30	RTA00001076F.d.19.1	M00006630A:E05
31	9/28/98	1492.001	31	RTA00001075F.e.14.1	M00005375B:H03
32	9/28/98	1492.001	32	RTA00001065F.f.02.1	M00007186A:A12
33	9/28/98	1492.001	33	RTA00001064F.p.03.1	M00006814D:D09
34	9/28/98	1492.001	34	RTA00001076F.i.19.1	M00006813B:E04
35	9/28/98	1492.001	35	RTA00001077F.c.06.1	M00007157B:B04
36	9/28/98	1492.001	36	RTA00001064F.c.21.1	M00005366D:E12
37	9/28/98	1492.001	37	RTA00001065F.e.21.1	M00007177A:G07
38	9/28/98	1492.001	38	RTA00001076F.o.14.1	M00007038D:D01

**Table 1A**

Priority Appln Information					
SEQ ID NO:	Filed	Dkt No.	SEQ ID NO:	Sequence Name	Clone Name
39	9/28/98	1492.001	39	RTA00001064F.c.01.1	M00005327C:G08
40	9/28/98	1492.001	40	RTA00001064F.d.16.1	M00005397A:G08
41	9/28/98	1492.001	41	RTA00000615F.e.05.2	M00004870D:E05
42	9/28/98	1492.001	42	RTA00000616F.j.12.1	M00005413D:G12
43	9/28/98	1492.001	43	RTA00001075F.a.17.1	M00004852B:H08
44	9/28/98	1492.001	44	RTA00001076F.n.10.1	M00006989C:B01
45	9/28/98	1492.001	45	RTA00001075F.l.04.1	M00005505D:H08
46	9/28/98	1492.001	46	RTA00001075F.l.10.1	M00005509B:E10
47	9/28/98	1492.001	47	RTA00001075F.i.09.1	M00005444D:D01
48	9/28/98	1492.001	48	RTA00001075F.j.13.1	M00005464B:B08
49	9/28/98	1492.001	49	RTA00001076F.e.03.1	M00006635A:C01
50	9/28/98	1492.001	50	RTA00001076F.j.14.1	M00006837B:H12
51	9/28/98	1492.001	51	RTA00001075F.g.19.1	M00005418C:B09
52	9/28/98	1492.001	52	RTA00001075F.m.05.1	M00005538C:H11
53	9/28/98	1492.001	53	RTA00001076F.p.03.1	M00007046D:E10
54	9/28/98	1492.001	54	RTA00001075F.h.19.1	M00005435B:F01
55	9/28/98	1492.001	55	RTA00001075F.h.14.1	M00005434C:E02
56	9/28/98	1492.001	56	RTA00001076F.l.14.1	M00006917B:C05
57	9/28/98	1492.001	57	RTA00001075F.h.17.1	M00005434D:H02
58	9/28/98	1492.001	58	RTA00001075F.f.18.1	M00005396C:H04
59	9/28/98	1492.001	59	RTA00001076F.l.03.1	M00006894D:A07
60	9/28/98	1492.001	60	RTA00001065F.d.07.2	M00007079D:H01
61	9/28/98	1492.001	61	RTA00001075F.e.18.1	M00005377C:F07
62	9/28/98	1492.001	62	RTA00001065F.d.03.2	M00007065D:A03
63	9/28/98	1492.001	63	RTA00001076F.b.18.1	M00006577A:B01
64	9/28/98	1492.001	64	RTA00001075F.m.16.1	M00005569B:E04
65	9/28/98	1492.001	65	RTA00001076F.d.13.1	M00006627C:C02
66	9/28/98	1492.001	66	RTA00001076F.i.16.1	M00006805D:H12
67	9/28/98	1492.001	67	RTA00001076F.p.10.1	M00007064B:E09
68	9/28/98	1492.001	68	RTA00001064F.p.14.1	M00006835D:C08
69	9/28/98	1492.001	69	RTA00001077F.b.04.1	M00007126D:H01
70	9/28/98	1492.001	70	RTA00001076F.d.04.1	M00006619A:G11
71	9/28/98	1492.001	71	RTA00001077F.a.22.1	M00007121D:A11
72	9/28/98	1492.001	72	RTA00001077F.c.19.1	M00007178D:A10
73	9/28/98	1492.001	73	RTA00001065F.f.06.1	M00007197D:D12
74	9/28/98	1492.001	74	RTA00000616F.f.11.3	M00005395D:D11
75	9/28/98	1492.001	75	RTA00001064F.l.13.2	M00006577B:F01
76	9/28/98	1492.001	76	RTA00001064F.o.08.1	M00006757D:H04

Table 1A

Priority Appln Information					
SEQ ID NO:	Filed	Dkt No.	SEQ ID NO:	Sequence Name	Clone Name
77	9/28/98	1492.001	77	RTA00001075F.o.03.1	M00005621A:B05
78	9/28/98	1492.001	78	RTA00001064F.l.23.2	M00006596D:H02
79	9/28/98	1492.001	79	RTA00001076F.e.01.1	M00006631D:G09
80	9/28/98	1492.001	80	RTA00001075F.j.22.1	M00005473C:F02
81	9/28/98	1492.001	81	RTA00001076F.h.16.1	M00006757A:C09
82	9/28/98	1492.001	82	RTA00001075F.j.08.1	M00005459B:A01
83	9/28/98	1492.001	83	RTA00001064F.o.19.1	M00006795C:B12
84	9/28/98	1492.001	84	RTA00001064F.o.07.1	M00006756D:G07
85	9/28/98	1492.001	85	RTA00001076F.i.09.1	M00006790D:F10
86	9/28/98	1492.001	86	RTA00001076F.i.22.1	M00006815D:D11
87	9/28/98	1492.001	87	RTA00001076F.c.21.1	M00006613C:C02
88	9/28/98	1492.001	88	RTA00001076F.j.19.1	M00006846A:B03
89	9/28/98	1492.001	89	RTA00001064F.o.13.1	M00006779D:F03
90	9/28/98	1492.001	90	RTA00001077F.a.06.1	M00007101C:H01
91	9/28/98	1492.001	91	RTA00001064F.n.01.1	M00006664A:C05
92	9/28/98	1492.001	92	RTA00001064F.c.12.1	M00005358A:H03
93	9/28/98	1492.001	93	RTA00001077F.d.07.1	M00007196D:D02
94	9/28/98	1492.001	94	RTA00001077F.c.18.1	M00007177B:C02
95	9/28/98	1492.001	95	RTA00001064F.g.12.1	M00005490B:B02
96	9/28/98	1492.001	96	RTA00001075F.b.07.1	M00004866C:H08
97	9/28/98	1492.001	97	RTA00000617F.p.03.2	M00005515B:B08
98	9/28/98	1492.001	98	RTA00000616F.f.10.3	M00005395D:B12
99	9/28/98	1492.001	99	RTA00001064F.p.15.1	M00006840A:A12
100	9/28/98	1492.001	100	RTA00000617F.p.10.2	M00005516D:F12
101	9/28/98	1492.001	101	RTA00001076F.m.01.1	M00006925B:B02
102	9/28/98	1492.001	102	RTA00001075F.f.15.1	M00005395C:C11
103	9/28/98	1492.001	103	RTA00001075F.e.23.1	M00005385B:A10
104	9/28/98	1492.001	104	RTA00001076F.f.12.1	M00006688C:C12
105	9/28/98	1492.001	105	RTA00001075F.g.21.1	M00005420C:E03
106	9/28/98	1492.001	106	RTA00001076F.g.18.1	M00006727A:H12
107	9/28/98	1492.001	107	RTA00001075F.d.24.1	M00005363D:C05
108	9/28/98	1492.001	108	RTA00001075F.e.02.1	M00005364C:A02
109	9/28/98	1492.001	109	RTA00001075F.m.14.1	M00005563C:D05
110	9/28/98	1492.001	110	RTA00001064F.h.07.1	M00005520A:H11
111	9/28/98	1492.001	111	RTA00001065F.b.07.1	M00006936C:G11
112	9/28/98	1492.001	112	RTA00001065F.b.23.1	M00006968D:H02
113	9/28/98	1492.001	113	RTA00001064F.g.15.1	M00005497C:G08
114	9/28/98	1492.001	114	RTA00001064F.d.14.1	M00005390C:E05

**Table 1A**

Priority Appln Information					
SEQ ID NO:	Filed	Dkt No.	SEQ ID NO:	Sequence Name	Clone Name
115	9/28/98	1492.001	115	RTA00001064F.l.22.2	M00006595C:B08
116	9/28/98	1492.001	116	RTA00001064F.p.04.1	M00006816D:D08
117	9/28/98	1492.001	117	RTA00001076F.g.04.1	M00006712A:F01
118	9/28/98	1492.001	118	RTA00001075F.p.17.1	M00005709D:H05
119	9/28/98	1492.001	119	RTA00001075F.l.03.1	M00005505B:D10
120	9/28/98	1492.001	120	RTA00001076F.l.23.1	M00006925A:B09
121	9/28/98	1492.001	121	RTA00001076F.k.11.1	M00006874D:E01
122	9/28/98	1492.001	122	RTA00001076F.n.15.1	M00006994A:C12
123	9/28/98	1492.001	123	RTA00001075F.o.10.1	M00005629B:G06
124	9/28/98	1492.001	124	RTA00001075F.n.04.1	M00005589B:H12
125	9/28/98	1492.001	125	RTA00001075F.f.06.1	M00005388B:B02
126	9/28/98	1492.001	126	RTA00001076F.j.05.1	M00006823A:H06
127	9/28/98	1492.001	127	RTA00001076F.o.18.1	M00007041C:C05
128	9/28/98	1492.001	128	RTA00001064F.j.14.1	M00005648C:C11
129	9/28/98	1492.001	129	RTA00001064F.d.06.1	M00005376B:E08
130	9/28/98	1492.001	130	RTA00001077F.d.10.1	M00007200A:B12
131	9/28/98	1492.001	131	RTA00001065F.d.19.1	M00007109D:G01
132	9/28/98	1492.001	132	RTA00001064F.f.13.1	M00005464D:D07
133	9/28/98	1492.001	133	RTA00001075F.k.20.1	M00005493D:H12
134	9/28/98	1492.001	134	RTA00001075F.k.07.1	M00005479C:A05
135	9/28/98	1492.001	135	RTA00001075F.a.14.1	M00004847D:G01
136	9/28/98	1492.001	136	RTA00001076F.f.22.1	M00006704A:C11
137	9/28/98	1492.001	137	RTA00001076F.m.11.1	M00006949B:C07
138	9/28/98	1492.001	138	RTA00001064F.i.13.2	M00005618C:H11
139	9/28/98	1492.001	139	RTA00001076F.f.19.3	M00006694D:G06
140	9/28/98	1492.001	140	RTA00001076F.c.23.1	M00006617A:A06
141	9/28/98	1492.001	141	RTA00001077F.a.09.1	M00007107C:D02
142	9/28/98	1492.001	142	RTA00001064F.b.14.1	M00005020B:D10
143	9/28/98	1492.001	143	RTA00001075F.e.21.1	M00005382A:G09
144	9/28/98	1492.001	144	RTA00001075F.p.15.1	M00005705D:G09
145	9/28/98	1492.001	145	RTA00001076F.n.11.1	M00006991B:E05
146	9/28/98	1492.001	146	RTA00001065F.e.18.1	M00007161C:D12
147	9/28/98	1492.001	147	RTA00000615F.e.06.2	M00004871C:C04
148	9/28/98	1492.001	148	RTA00001064F.a.04.2	M00004821D:C03
149	9/28/98	1492.001	149	RTA00001075F.j.18.1	M00005469A:D10
150	9/28/98	1492.001	150	RTA00001077F.c.05.1	M00007156D:E11
151	9/28/98	1492.001	151	RTA00001075F.g.22.1	M00005420C:E10
152	9/28/98	1492.001	152	RTA00001077F.a.08.1	M00007104D:D10

**Table 1A**

Priority Appln Information					
SEQ ID NO:	Filed	Dkt No.	SEQ ID NO:	Sequence Name	Clone Name
153	9/28/98	1492.001	153	RTA00001077F.c.15.1	M00007172D:H03
154	9/28/98	1492.001	154	RTA00001077F.c.16.1	M00007175B:B11
155	9/28/98	1492.001	155	RTA00001077F.b.15.1	M00007141A:G08
156	9/28/98	1492.001	156	RTA00001077F.c.17.1	M00007175D:G02
157	9/28/98	1492.001	157	RTA00001077F.a.14.1	M00007116A:C08
158	9/28/98	1492.001	158	RTA00001075F.i.02.1	M00005438D:A08
159	9/28/98	1492.001	159	RTA00001075F.l.11.1	M00005509D:G05
160	9/28/98	1492.001	160	RTA00001064F.d.20.1	M00005403A:D12
161	9/28/98	1492.001	161	RTA00001076F.h.10.1	M00006740A:A06
162	9/28/98	1492.001	162	RTA00001075F.k.21.1	M00005494C:F08
163	9/28/98	1492.001	163	RTA00001075F.i.21.1	M00005450C:G09
164	9/28/98	1492.001	164	RTA00001076F.p.24.1	M00007093C:C11
165	9/28/98	1492.001	165	RTA00001075F.f.03.1	M00005385D:B08
166	9/28/98	1492.001	166	RTA00001065F.d.18.2	M00007107A:H08
167	9/28/98	1492.001	167	RTA00001076F.o.05.1	M00007026A:A03
168	9/28/98	1492.001	168	RTA00001075F.d.10.1	M00005353C:H01
169	9/28/98	1492.001	169	RTA00001064F.d.07.1	M00005378B:B04
170	9/28/98	1492.001	170	RTA00001065F.b.11.1	M00006945D:A07
171	9/28/98	1492.001	171	RTA00001076F.g.17.1	M00006726D:H10
172	9/28/98	1492.001	172	RTA00001065F.a.21.1	M00006918D:G08
173	9/28/98	1492.001	173	RTA00001077F.d.12.1	M00007203C:E06
174	9/28/98	1492.001	174	RTA00001064F.g.08.1	M00005481C:H05
175	9/28/98	1492.001	175	RTA00001064F.f.02.1	M00005449D:D04
176	9/28/98	1492.001	176	RTA00001075F.a.02.1	M00004825A:G12
177	9/28/98	1492.001	177	RTA00001064F.b.16.1	M00005296B:H07
178	9/28/98	1492.001	178	RTA00001077F.c.02.1	M00007152A:A10
179	9/28/98	1492.001	179	RTA00001064F.g.04.1	M00005480C:A04
180	9/28/98	1492.001	180	RTA00001075F.c.12.1	M00005305A:H01
181	9/28/98	1492.001	181	RTA00001064F.o.04.1	M00006752C:D04
182	9/28/98	1492.001	182	RTA00001077F.a.21.1	M00007121A:G04
183	9/28/98	1492.001	183	RTA00001075F.f.11.1	M00005392C:B03
184	9/28/98	1492.001	184	RTA00001064F.k.24.2	M00005820A:H11
185	9/28/98	1492.001	185	RTA00001075F.d.02.1	M00005342D:E04
186	9/28/98	1492.001	186	RTA00001076F.c.13.1	M00006600D:G07
187	9/28/98	1492.001	187	RTA00001075F.b.15.1	M00004872C:G03
188	9/28/98	1492.001	188	RTA00001064F.f.09.1	M00005461C:D11
189	9/28/98	1492.001	189	RTA00001075F.g.14.1	M00005416B:A01
190	9/28/98	1492.001	190	RTA00001075F.f.17.1	M00005396A:C01



Table 1A

Priority Appln Information

SEQ ID NO:	Filed	Dkt No.	SEQ ID NO:	Sequence Name	Clone Name
191	9/28/98	1492.001	191	RTA00001076F.l.05.1	M00006895D:A02
192	9/28/98	1492.001	192	RTA00001076F.o.02.1	M00007019B:G01
193	9/28/98	1492.001	193	RTA00001064F.b.07.1	M00005000A:H05
194	9/28/98	1492.001	194	RTA00001075F.d.17.1	M00005358B:D10
195	9/28/98	1492.001	195	RTA00000624F.f.12.2	M00005607A:C08
196	9/28/98	1492.001	196	RTA00001075F.c.22.1	M00005342B:G01
197	9/28/98	1492.001	197	RTA00001065F.a.17.1	M00006914C:D07
198	9/28/98	1492.001	198	RTA00001075F.b.02.1	M00004859D:D01
199	9/28/98	1492.001	199	RTA00001077F.c.12.1	M00007167C:B10
200	9/28/98	1492.001	200	RTA00001077F.c.20.1	M00007179B:H04
201	9/28/98	1492.001	201	RTA00001076F.m.04.1	M00006934B:B11
202	9/28/98	1492.001	202	RTA00001076F.j.22.1	M00006859D:E11
203	9/28/98	1492.001	203	RTA00001076F.k.13.1	M00006882C:D03
204	9/28/98	1492.001	204	RTA00001075F.k.14.1	M00005485C:F09
205	9/28/98	1492.001	205	RTA00001076F.f.10.1	M00006680D:A01
206	9/28/98	1492.001	206	RTA00001064F.o.05.1	M00006755C:C03
207	9/28/98	1492.001	207	RTA00001064F.l.05.2	M00005826B:F10
208	9/28/98	1492.001	208	RTA00001076F.p.04.1	M00007047D:C02
209	9/28/98	1492.001	209	RTA00001064F.l.04.1	M00005822D:C05
210	9/28/98	1492.001	210	RTA00001076F.c.03.1	M00006584D:D01
211	9/28/98	1492.001	211	RTA00001064F.m.06.1	M00006621B:B06
212	9/28/98	1492.001	212	RTA00001075F.k.15.1	M00005486A:F07
213	9/28/98	1492.001	213	RTA00001064F.d.08.1	M00005378C:B12
214	9/28/98	1492.001	214	RTA00001077F.d.11.1	M00007202A:A09
215	9/28/98	1492.001	215	RTA00001077F.b.14.1	M00007140C:G12
216	9/28/98	1492.001	216	RTA00001075F.k.04.1	M00005476D:A11
217	9/28/98	1492.001	217	RTA00001064F.n.03.1	M00006678C:B07
218	9/28/98	1492.001	218	RTA00001075F.i.12.1	M00005446B:D10
219	9/28/98	1492.001	219	RTA00001075F.f.04.1	M00005386C:G01
220	9/28/98	1492.001	220	RTA00001076F.n.14.1	M00006993B:F02
221	9/28/98	1492.001	221	RTA00001064F.k.19.2	M00005810B:C07
222	9/28/98	1492.001	222	RTA00001076F.d.20.1	M00006630A:E09
223	9/28/98	1492.001	223	RTA00001077F.b.20.1	M00007145C:B05
224	9/28/98	1492.001	224	RTA00001076F.f.11.1	M00006688A:F09
225	9/28/98	1492.001	225	RTA00001065F.d.01.1	M00007047C:H04
226	9/28/98	1492.001	226	RTA00001075F.g.12.1	M00005413B:B02
227	9/28/98	1492.001	227	RTA00001064F.a.09.2	M00004841C:H03
228	9/28/98	1492.001	228	RTA00001064F.k.20.2	M00005810B:G02

**Table 1A**

Priority Appln Information					
SEQ ID NO:	Filed	Dkt No.	SEQ ID NO:	Sequence Name	Clone Name
229	9/28/98	1492.001	229	RTA00001064F.b.17.1	M00005296D:G03
230	9/28/98	1493.001	1	RTA00001073F.f.17.1	M00004087A:H06
231	9/28/98	1493.001	2	RTA00001073F.l.02.1	M00004168D:F05
232	9/28/98	1493.001	3	RTA00001072F.i.07.3	M00003845B:A04
233	9/28/98	1493.001	4	RTA00001071F.i.23.3	M00001477A:G02
234	9/28/98	1493.001	5	RTA00000611F.e.04.2	M00004170C:H06
235	9/28/98	1493.001	6	RTA00001062F.f.19.1	M00003888C:G08
236	9/28/98	1493.001	7	RTA00001073F.l.22.1	M00004176B:H09
237	9/28/98	1493.001	8	RTA00001063F.l.10.1	M00004410A:F06
238	9/28/98	1493.001	9	RTA00001062F.l.13.1	M00004034A:A05
239	9/28/98	1493.001	10	RTA00001074F.l.10.1	M00004495D:A05
240	9/28/98	1493.001	11	RTA00001061F.d.01.1	M00001389C:E01
241	9/28/98	1493.001	12	RTA00001072F.j.04.2	M00003861D:G10
242	9/28/98	1493.001	13	RTA00001073F.d.04.1	M00004048C:C02
243	9/28/98	1493.001	14	RTA00001061F.j.09.1	M00001507A:H06
244	9/28/98	1493.001	15	RTA00001071F.h.16.1	M00001450D:H12
245	9/28/98	1493.001	16	RTA00001062F.o.17.1	M00004108B:D04
246	9/28/98	1493.001	17	RTA00001073F.c.20.1	M00004046C:A04
247	9/28/98	1493.001	18	RTA00001063F.k.14.1	M00004381A:E10
248	9/28/98	1493.001	19	RTA00000611F.e.18.2	M00004171D:H10
249	9/28/98	1493.001	20	RTA00001072F.a.18.2	M00001655C:F07
250	9/28/98	1493.001	21	RTA00001072F.b.04.2	M00001660A:B10
251	9/28/98	1493.001	22	RTA00001074F.g.19.1	M00004372A:A08
252	9/28/98	1493.001	23	RTA00001072F.i.09.3	M00003845C:F08
253	9/28/98	1493.001	24	RTA00001072F.a.21.2	M00001657D:D07
254	9/28/98	1493.001	25	RTA00001072F.m.18.3	M00003916D:A10
255	9/28/98	1493.001	26	RTA00001061F.b.04.1	M00001360B:F09
256	9/28/98	1493.001	27	RTA00001072F.o.06.2	M00003935A:C04
257	9/28/98	1493.001	28	RTA00001072F.n.19.3	M00003931A:G01
258	9/28/98	1493.001	29	RTA00001073F.e.08.1	M00004068A:A03
259	9/28/98	1493.001	30	RTA00001074F.g.22.1	M00004373D:G10
260	9/28/98	1493.001	31	RTA00001073F.c.01.1	M00004030C:E05
261	9/28/98	1493.001	32	RTA00001074F.f.15.1	M00004360B:B08
262	9/28/98	1493.001	33	RTA00001074F.f.01.1	M00004350A:C04
263	9/28/98	1493.001	34	RTA00001074F.d.08.1	M00004318D:D07
264	9/28/98	1493.001	35	RTA00001072F.f.11.2	M00003788D:E06
265	9/28/98	1493.001	36	RTA00001074F.e.05.1	M00004337A:A07
266	9/28/98	1493.001	37	RTA00001072F.g.05.2	M00003803B:G12

Table 1A

Priority Appln Information					
SEQ ID NO:	Filed	Dkt No.	SEQ ID NO:	Sequence Name	Clone Name
267	9/28/98	1493.001	38	RTA00001071F.j.04.3	M00001479D:B10
268	9/28/98	1493.001	39	RTA00001074F.j.05.1	M00004415A:A01
269	9/28/98	1493.001	40	RTA00001074F.j.04.1	M00004414D:C11
270	9/28/98	1493.001	41	RTA00001073F.e.06.1	M00004067C:C10
271	9/28/98	1493.001	42	RTA00001071F.d.14.1	M00001389A:F03
272	9/28/98	1493.001	43	RTA00001071F.f.12.1	M00001418C:F06
273	9/28/98	1493.001	44	RTA00001061F.m.13.1	M00001601D:A03
274	9/28/98	1493.001	45	RTA00001061F.e.17.1	M00001418A:A02
275	9/28/98	1493.001	46	RTA00001071F.m.09.3	M00001563A:F04
276	9/28/98	1493.001	47	RTA00001062F.l.05.1	M00004029D:H03
277	9/28/98	1493.001	48	RTA00001073F.i.02.2	M00004125B:A02
278	9/28/98	1493.001	49	RTA00001063F.l.04.1	M00004404C:B03
279	9/28/98	1493.001	50	RTA00001063F.l.14.1	M00004412A:G05
280	9/28/98	1493.001	51	RTA00001063F.e.05.1	M00004232D:G11
281	9/28/98	1493.001	52	RTA00001062F.f.06.1	M00003880A:G10
282	9/28/98	1493.001	53	RTA00001072F.b.23.2	M00001683B:F12
283	9/28/98	1493.001	54	RTA00001073F.a.13.1	M00003989D:A02
284	9/28/98	1493.001	55	RTA00001074F.h.16.1	M00004386C:C03
285	9/28/98	1493.001	56	RTA00001073F.a.15.1	M00003991A:D05
286	9/28/98	1493.001	57	RTA00001073F.k.01.1	M00004152A:F03
287	9/28/98	1493.001	58	RTA00001072F.l.19.2	M00003901B:C02
288	9/28/98	1493.001	59	RTA00001072F.i.15.3	M00003848A:E08
289	9/28/98	1493.001	60	RTA00001072F.i.05.3	M00003844D:B02
290	9/28/98	1493.001	61	RTA00001074F.m.06.1	M00004603D:D09
291	9/28/98	1493.001	62	RTA00001062F.m.15.1	M00004063B:B12
292	9/28/98	1493.001	63	RTA00001074F.d.19.1	M00004326D:D06
293	9/28/98	1493.001	64	RTA00001073F.j.02.1	M00004140B:C02
294	9/28/98	1493.001	65	RTA00001071F.l.11.1	M00001545D:F12
295	9/28/98	1493.001	66	RTA00001074F.f.12.1	M00004356C:D02
296	9/28/98	1493.001	67	RTA00001073F.h.03.1	M00004110A:G03
297	9/28/98	1493.001	68	RTA00001074F.a.19.1	M00004275A:H07
298	9/28/98	1493.001	69	RTA00001063F.g.15.1	M00004292A:C08
299	9/28/98	1493.001	70	RTA00001061F.a.09.1	M00001345C:B10
300	9/28/98	1493.001	71	RTA00001063F.f.23.1	M00004284A:C09
301	9/28/98	1493.001	72	RTA00001073F.e.10.1	M00004069A:E04
302	9/28/98	1493.001	73	RTA00001073F.g.15.1	M00004103A:E06
303	9/28/98	1493.001	74	RTA00001073F.n.20.1	M00004209B:G01
304	9/28/98	1493.001	75	RTA00001073F.g.11.1	M00004099C:F04

Table 1A

Priority Appln Information					
SEQ ID NO:	Filed	Dkt No.	SEQ ID NO:	Sequence Name	Clone Name
305	9/28/98	1493.001	76	RTA00001071F.p.05.1	M00001630A:E08
306	9/28/98	1493.001	77	RTA00001073F.l.19.1	M00004175D:D05
307	9/28/98	1493.001	78	RTA00001074F.j.17.1	M00004426B:H06
308	9/28/98	1493.001	79	RTA00001074F.b.22.1	M00004292A:F03
309	9/28/98	1493.001	80	RTA00001071F.d.19.1	M00001391C:B05
310	9/28/98	1493.001	81	RTA00001062F.j.02.1	M00003960D:E09
311	9/28/98	1493.001	82	RTA00001072F.b.09.2	M00001664D:E02
312	9/28/98	1493.001	83	RTA00001073F.b.08.1	M00003998C:D04
313	9/28/98	1493.001	84	RTA00001062F.j.19.1	M00003977D:H04
314	9/28/98	1493.001	85	RTA00001062F.m.18.1	M00004066D:C02
315	9/28/98	1493.001	86	RTA00001062F.b.02.1	M00003775C:C01
316	9/28/98	1493.001	87	RTA00001061F.d.20.1	M00001401B:A02
317	9/28/98	1493.001	88	RTA00001071F.n.05.3	M00001579C:E07
318	9/28/98	1493.001	89	RTA00001073F.l.04.1	M00004170B:G04
319	9/28/98	1493.001	90	RTA00001071F.h.04.1	M00001442D:D09
320	9/28/98	1493.001	91	RTA00001062F.o.11.1	M00004104C:F06
321	9/28/98	1493.001	92	RTA00001062F.i.10.1	M00003939B:C02
322	9/28/98	1493.001	93	RTA00001071F.g.16.1	M00001431A:F03
323	9/28/98	1493.001	94	RTA00001061F.d.06.1	M00001392A:F02
324	9/28/98	1493.001	95	RTA00001071F.m.01.3	M00001561A:G10
325	9/28/98	1493.001	96	RTA00001062F.n.06.1	M00004081A:E11
326	9/28/98	1493.001	97	RTA00001061F.d.14.1	M00001397D:G04
327	9/28/98	1493.001	98	RTA00001061F.j.10.1	M00001507D:F09
328	9/28/98	1493.001	99	RTA00001063F.c.07.1	M00004185B:H03
329	9/28/98	1493.001	100	RTA00001061F.j.12.1	M00001513B:F05
330	9/28/98	1493.001	101	RTA00001061F.o.22.1	M00001678A:B10
331	9/28/98	1493.001	102	RTA00001071F.e.03.1	M00001395D:B04
332	9/28/98	1493.001	103	RTA00001072F.e.13.2	M00003772C:F12
333	9/28/98	1493.001	104	RTA00001062F.i.03.1	M00003928D:A04
334	9/28/98	1493.001	105	RTA00001072F.d.20.2	M00003761C:C05
335	9/28/98	1493.001	106	RTA00001074F.g.16.1	M00004371B:A05
336	9/28/98	1493.001	107	RTA00001074F.f.09.1	M00004353D:C06
337	9/28/98	1493.001	108	RTA00001071F.k.12.1	M00001505C:C10
338	9/28/98	1493.001	109	RTA00001074F.f.13.1	M00004357A:B10
339	9/28/98	1493.001	110	RTA00001071F.e.08.1	M00001397C:F01
340	9/28/98	1493.001	111	RTA00001073F.h.11.1	M00004117D:F06
341	9/28/98	1493.001	112	RTA00001072F.o.14.2	M00003937D:F09
342	9/28/98	1493.001	113	RTA00001074F.c.11.1	M00004298A:H09

Table 1A

Priority Appln Information					
SEQ ID NO:	Filed	Dkt No.	SEQ ID NO:	Sequence Name	Clone Name
343	9/28/98	1493.001	114	RTA00001074F.g.08.1	M00004368A:G11
344	9/28/98	1493.001	115	RTA00001073F.a.18.1	M00003993C:G11
345	9/28/98	1493.001	116	RTA00001073F.f.19.1	M00004090A:B11
346	9/28/98	1493.001	117	RTA00001072F.l.20.2	M00003902C:D02
347	9/28/98	1493.001	118	RTA00001073F.b.06.1	M00003997D:G03
348	9/28/98	1493.001	119	RTA00001062F.o.14.1	M00004105C:C05
349	9/28/98	1493.001	120	RTA00001071F.i.04.3	M00001457D:E08
350	9/28/98	1493.001	121	RTA00001074F.a.23.1	M00004278C:H11
351	9/28/98	1493.001	122	RTA00001073F.c.04.1	M00004034A:G03
352	9/28/98	1493.001	123	RTA00001072F.h.18.2	M00003833D:F11
353	9/28/98	1493.001	124	RTA00001074F.i.06.1	M00004403A:A02
354	9/28/98	1493.001	125	RTA00001063F.e.09.1	M00004240A:D03
355	9/28/98	1493.001	126	RTA00001061F.d.03.1	M00001390C:H05
356	9/28/98	1493.001	127	RTA00001063F.d.23.1	M00004225A:E03
357	9/28/98	1493.001	128	RTA00001063F.k.08.1	M00004378A:H10
358	9/28/98	1493.001	129	RTA00001062F.b.04.1	M00003776B:F08
359	9/28/98	1493.001	130	RTA00001063F.b.18.1	M00004178B:F07
360	9/28/98	1493.001	131	RTA00001062F.b.11.1	M00003788B:C08
361	9/28/98	1493.001	132	RTA00001074F.l.23.1	M00004504C:G07
362	9/28/98	1493.001	133	RTA00001063F.m.08.1	M00004444C:H11
363	9/28/98	1493.001	134	RTA00001071F.l.13.2	M00001549C:F10
364	9/28/98	1493.001	135	RTA00001072F.p.19.2	M00003973A:D09
365	9/28/98	1493.001	136	RTA00001071F.k.17.1	M00001517C:A10
366	9/28/98	1493.001	137	RTA00001072F.o.24.2	M00003943B:C12
367	9/28/98	1493.001	138	RTA00001074F.a.20.1	M00004276A:C06
368	9/28/98	1493.001	139	RTA00001073F.c.16.1	M00004043C:A06
369	9/28/98	1493.001	140	RTA00001074F.j.10.1	M00004422C:A01
370	9/28/98	1493.001	141	RTA00001063F.n.16.1	M00004498D:F02
371	9/28/98	1493.001	142	RTA00001071F.o.16.1	M00001615A:D01
372	9/28/98	1493.001	143	RTA00001073F.k.16.1	M00004165D:H12
373	9/28/98	1493.001	144	RTA00001062F.e.14.1	M00003856A:H10
374	9/28/98	1493.001	145	RTA00001071F.h.22.1	M00001454D:H09
375	9/28/98	1493.001	146	RTA00001071F.o.18.1	M00001618C:E01
376	9/28/98	1493.001	147	RTA00001062F.p.19.1	M00004140D:E03
377	9/28/98	1493.001	148	RTA00001062F.d.04.1	M00003818C:D02
378	9/28/98	1493.001	149	RTA00001072F.n.22.3	M00003933A:B04
379	9/28/98	1493.001	150	RTA00001063F.c.11.1	M00004187A:B05
380	9/28/98	1493.001	151	RTA00001061F.j.22.1	M00001531B:A03

Table 1A

Priority Appln Information					
SEQ ID NO:	Filed	Dkt No.	SEQ ID NO:	Sequence Name	Clone Name
381	9/28/98	1493.001	152	RTA00001062F.d.08.1	M00003820C:E08
382	9/28/98	1493.001	153	RTA00001062F.f.02.1	M00003877C:G01
383	9/28/98	1493.001	154	RTA00001062F.d.24.1	M00003839D:C03
384	9/28/98	1493.001	155	RTA00001074F.h.24.1	M00004391C:F12
385	9/28/98	1493.001	156	RTA00001071F.a.10.1	M00001341A:H10
386	9/28/98	1493.001	157	RTA00001074F.k.13.1	M00004449B:B05
387	9/28/98	1493.001	158	RTA00001072F.k.16.2	M00003884C:G09
388	9/28/98	1493.001	159	RTA00001073F.k.09.1	M00004158C:B01
389	9/28/98	1493.001	160	RTA00001074F.b.14.1	M00004288D:E07
390	9/28/98	1493.001	161	RTA00001073F.k.08.1	M00004157C:E06
391	9/28/98	1493.001	162	RTA00001074F.i.17.1	M00004406D:E11
392	9/28/98	1493.001	163	RTA00001074F.k.10.1	M00004447A:A10
393	9/28/98	1493.001	164	RTA00001062F.p.14.1	M00004135D:D01
394	9/28/98	1493.001	165	RTA00001071F.m.15.3	M00001569A:H01
395	9/28/98	1493.001	166	RTA00001074F.h.15.1	M00004385D:D06
396	9/28/98	1493.001	167	RTA00001062F.i.09.1	M00003935D:E04
397	9/28/98	1493.001	168	RTA00000611F.e.06.2	M00004170D:C06
398	9/28/98	1493.001	169	RTA00001062F.d.19.1	M00003835B:C05
399	9/28/98	1493.001	170	RTA00001062F.o.15.1	M00004107A:E02
400	9/28/98	1493.001	171	RTA00001071F.a.07.1	M00001340C:A08
401	9/28/98	1493.001	172	RTA00001062F.d.07.1	M00003820B:G04
402	9/28/98	1493.001	173	RTA00001074F.j.11.1	M00004423A:B05
403	9/28/98	1493.001	174	RTA00001071F.m.11.3	M00001565C:F06
404	9/28/98	1493.001	175	RTA00001062F.i.01.1	M00003926A:D01
405	9/28/98	1493.001	176	RTA00001072F.g.08.2	M00003804D:F12
406	9/28/98	1493.001	177	RTA00001071F.n.16.1	M00001594A:H01
407	9/28/98	1493.001	178	RTA00001062F.a.09.1	M00003756D:B09
408	9/28/98	1493.001	179	RTA00001073F.h.08.1	M00004114C:B09
409	9/28/98	1493.001	180	RTA00001073F.e.03.1	M00004064B:G03
410	9/28/98	1493.001	181	RTA00001073F.c.23.1	M00004048A:E10
411	9/28/98	1493.001	182	RTA00001074F.l.15.1	M00004498D:A11
412	9/28/98	1493.001	183	RTA00001073F.l.21.1	M00004176A:H05
413	9/28/98	1493.001	184	RTA00001071F.d.15.1	M00001389B:B12
414	9/28/98	1493.001	185	RTA00001073F.i.08.1	M00004127C:C08
415	9/28/98	1493.001	186	RTA00001073F.k.21.1	M00004167A:H04
416	9/28/98	1493.001	187	RTA00001072F.j.05.2	M00003865B:D10
417	9/28/98	1493.001	188	RTA00001063F.i.15.1	M00004335A:G05
418	9/28/98	1493.001	189	RTA00001062F.g.21.1	M00003907C:D02

Table 1A

Priority Appln Information					
SEQ ID NO:	Filed	Dkt No.	SEQ ID NO:	Sequence Name	Clone Name
419	9/28/98	1493.001	190	RTA00001073F.b.16.1	M00004027C:E06
420	9/28/98	1493.001	191	RTA00001062F.g.06.1	M00003895C:F05
421	9/28/98	1493.001	192	RTA00001071F.b.17.1	M00001360B:B01
422	9/28/98	1493.001	193	RTA00001073F.f.18.1	M00004087B:D05
423	9/28/98	1493.001	194	RTA00001074F.b.04.1	M00004280D:D10
424	9/28/98	1493.001	195	RTA00001072F.d.23.2	M00003762D:C02
425	9/28/98	1493.001	196	RTA00001073F.l.14.1	M00004173A:D03
426	9/28/98	1493.001	197	RTA00001061F.p.21.1	M00003747C:G12
427	9/28/98	1493.001	198	RTA00001071F.n.22.1	M00001598C:F02
428	9/28/98	1493.001	199	RTA00001073F.d.22.1	M00004059D:A09
429	9/28/98	1493.001	200	RTA00001072F.j.14.2	M00003876C:G11
430	9/28/98	1493.001	201	RTA00001071F.k.21.2	M00001528D:B12
431	9/28/98	1493.001	202	RTA00001074F.a.09.1	M00004269C:B10
432	9/28/98	1493.001	203	RTA00001073F.p.19.1	M00004253A:E02
433	9/28/98	1493.001	204	RTA00001061F.b.02.1	M00001358B:F12
434	9/28/98	1493.001	205	RTA00001063F.e.10.1	M00004240C:A06
435	9/28/98	1493.001	206	RTA00001074F.j.18.1	M00004427D:H04
436	9/28/98	1493.001	207	RTA00001073F.f.09.1	M00004084C:F05
437	9/28/98	1493.001	208	RTA00001071F.l.19.1	M00001558D:E02
438	9/28/98	1493.001	209	RTA00001073F.c.09.1	M00004036B:C11
439	9/28/98	1493.001	210	RTA00001074F.a.14.1	M00004270C:H05
440	9/28/98	1493.001	211	RTA00001074F.l.03.1	M00004466A:E04
441	9/28/98	1493.001	212	RTA00000611F.f.13.2	M00004175D:G10
442	9/28/98	1493.001	213	RTA00001074F.e.16.1	M00004343A:G07
443	9/28/98	1493.001	214	RTA00001073F.l.05.1	M00004170C:A12
444	9/28/98	1493.001	215	RTA00001074F.e.19.1	M00004347A:F10
445	9/28/98	1493.001	216	RTA00001073F.e.07.1	M00004067C:E05
446	9/28/98	1493.001	217	RTA00001062F.p.22.1	M00004142C:A06
447	9/28/98	1493.001	218	RTA00001061F.c.11.1	M00001382D:F03
448	9/28/98	1493.001	219	RTA00001062F.f.01.1	M00003877C:A08
449	9/28/98	1493.001	220	RTA00001072F.l.09.2	M00003893A:D03
450	9/28/98	1493.001	221	RTA00001072F.i.14.2	M00003847B:H01
451	9/28/98	1493.001	222	RTA00001063F.g.18.1	M00004295A:C02
452	9/28/98	1493.001	223	RTA00001062F.j.18.1	M00003977C:D01
453	9/28/98	1493.001	224	RTA00001061F.b.05.1	M00001360D:C12
454	9/28/98	1493.001	225	RTA00001074F.e.18.1	M00004344B:C06
455	9/28/98	1493.001	226	RTA00001061F.o.20.1	M00001677B:G01
456	9/28/98	1493.001	227	RTA00001062F.d.10.1	M00003822A:D02

**Table 1A**

## Priority Appln Information

SEQ ID NO:	Filed	Dkt No.	SEQ ID NO:	Sequence Name	Clone Name
457	9/28/98	1493.001	228	RTA00001062F.h.16.1	M00003919D:F01
458	9/28/98	1493.001	229	RTA00001063F.e.19.1	M00004251B:H12
459	9/28/98	1493.001	230	RTA00001061F.o.18.1	M00001675C:F05
460	9/28/98	1493.001	231	RTA00001072F.j.20.2	M00003879D:A09
461	9/28/98	1493.001	232	RTA00001071F.j.15.3	M00001485A:C04
462	9/28/98	1493.001	233	RTA00001071F.a.09.1	M00001340C:D09
463	9/28/98	1493.001	234	RTA00001074F.j.13.1	M00004423C:F03
464	9/28/98	1493.001	235	RTA00001071F.i.15.3	M00001466C:H11
465	9/28/98	1493.001	236	RTA00001071F.b.13.1	M00001358C:D09
466	9/28/98	1493.001	237	RTA00001061F.g.05.1	M00001441D:G02
467	9/28/98	1493.001	238	RTA00001063F.e.16.1	M00004249A:C09
468	9/28/98	1493.001	239	RTA00001072F.j.22.2	M00003880B:B08
469	9/28/98	1493.001	240	RTA00001063F.i.16.1	M00004335D:D03
470	9/28/98	1493.001	241	RTA00000611F.f.05.2	M00004174B:B12
471	9/28/98	1493.001	242	RTA00001071F.p.07.1	M00001631D:G08
472	9/28/98	1493.001	243	RTA00001071F.c.12.1	M00001375C:C11
473	9/28/98	1493.001	244	RTA00001074F.k.15.1	M00004450A:G07
474	9/28/98	1493.001	245	RTA00001061F.e.19.1	M00001419A:E01
475	9/28/98	1493.001	246	RTA00001073F.g.22.1	M00004108C:D07
476	9/28/98	1493.001	247	RTA00001061F.g.01.1	M00001437D:A12
477	9/28/98	1493.001	248	RTA00001072F.n.08.2	M00003923D:A03
478	9/28/98	1493.001	249	RTA00001074F.b.12.1	M00004286D:D02
479	9/28/98	1493.001	250	RTA00001061F.l.18.1	M00001576C:E03
480	9/28/98	1493.001	251	RTA00001074F.j.03.1	M00004414D:A01
481	9/28/98	1493.001	252	RTA00001072F.h.07.2	M00003824A:B11
482	9/28/98	1493.001	253	RTA00001072F.j.18.2	M00003877C:C11
483	9/28/98	1493.001	254	RTA00001063F.c.21.1	M00004198B:G08
484	9/28/98	1493.001	255	RTA00001073F.m.11.1	M00004181A:B05
485	9/28/98	1493.001	256	RTA00001061F.h.16.1	M00001463C:E12
486	9/28/98	1493.001	257	RTA00001073F.i.11.1	M00004128B:H11
487	9/28/98	1493.001	258	RTA00001062F.k.20.1	M00003997A:C08
488	9/28/98	1493.001	259	RTA00001062F.o.05.1	M00004101A:C12
489	9/28/98	1493.001	260	RTA00001073F.p.01.1	M00004237B:G01
490	9/28/98	1493.001	261	RTA00001072F.a.04.2	M00001647D:A02
491	9/28/98	1493.001	262	RTA00001073F.e.12.1	M00004071C:B06
492	9/28/98	1493.001	263	RTA00001073F.p.22.1	M00004253D:D04
493	9/28/98	1493.001	264	RTA00001072F.i.19.3	M00003853C:A09
494	9/28/98	1493.001	265	RTA00001071F.d.06.1	M00001386B:E01



Table 1A

Priority Appln Information					
SEQ ID NO:	Filed	Dkt No.	SEQ ID NO:	Sequence Name	Clone Name
495	9/28/98	1493.001	266	RTA00001073F.j.20.1	M00004149C:D11
496	9/28/98	1493.001	267	RTA00001074F.l.20.1	M00004502B:G05
497	9/28/98	1493.001	268	RTA00001072F.h.14.2	M00003829C:G07
498	9/28/98	1493.001	269	RTA00001062F.b.13.1	M00003788C:C05
499	9/28/98	1493.001	270	RTA00001061F.j.14.1	M00001514B:C02
500	9/28/98	1493.001	271	RTA00001072F.j.11.2	M00003870C:H03
501	9/28/98	1493.001	272	RTA00001074F.m.01.1	M00004507A:F11
502	9/28/98	1493.001	273	RTA00001063F.f.03.1	M00004264B:F03
503	9/28/98	1493.001	274	RTA00001071F.l.21.1	M00001559D:E02
504	9/28/98	1493.001	275	RTA00001072F.b.11.2	M00001669B:H04
505	9/28/98	1493.001	276	RTA00001074F.i.16.1	M00004406A:H12
506	9/28/98	1493.001	277	RTA00001061F.j.03.1	M00001500A:A02
507	9/28/98	1493.001	278	RTA00001062F.n.16.1	M00004085B:D12
508	9/28/98	1493.001	279	RTA00001073F.j.03.1	M00004140C:D04
509	9/28/98	1493.001	280	RTA00001072F.k.01.2	M00003880C:D06
510	9/28/98	1493.001	281	RTA00001074F.k.08.1	M00004445D:A04
511	9/28/98	1493.001	282	RTA00001062F.k.05.1	M00003985B:F06
512	9/28/98	1493.001	283	RTA00001073F.h.01.1	M00004109A:B07
513	9/28/98	1493.001	284	RTA00000611F.f.15.2	M00004176A:E07
514	9/28/98	1493.001	285	RTA00001073F.b.01.1	M00003995B:C06
515	9/28/98	1493.001	286	RTA00001072F.c.16.2	M00001694B:H12
516	9/28/98	1493.001	287	RTA00001073F.c.10.1	M00004036C:E10
517	9/28/98	1493.001	288	RTA00001062F.g.22.1	M00003908C:C04
518	9/28/98	1493.001	289	RTA00001074F.d.15.1	M00004323B:G12
519	9/28/98	1493.001	290	RTA00001061F.c.12.1	M00001383C:C04
520	9/28/98	1493.001	291	RTA00001073F.k.15.1	M00004165B:E03
521	9/28/98	1493.001	292	RTA00001072F.j.23.2	M00003880B:D03
522	9/28/98	1493.001	293	RTA00001073F.j.21.1	M00004150A:B09
523	9/28/98	1493.001	294	RTA00001073F.h.20.1	M00004123B:G05
524	9/28/98	1493.001	295	RTA00001063F.g.05.1	M00004285C:B06
525	9/28/98	1493.001	296	RTA00001061F.a.21.1	M00001352D:A09
526	9/28/98	1493.001	297	RTA00001061F.d.17.1	M00001399B:C04
527	9/28/98	1493.001	298	RTA00001072F.h.04.2	M00003819D:B02
528	9/29/98	1494.001	1	RTA00001082F.j.11.1	M00027137D:F05
529	9/29/98	1494.001	2	RTA00001082F.h.08.1	M00027042D:E02
530	9/29/98	1494.001	3	RTA00001082F.e.15.1	M00026936D:D01
531	9/29/98	1494.001	4	RTA00001082F.l.21.1	M00027204B:A08
532	9/29/98	1494.001	5	RTA00001082F.e.05.1	M00026910C:C05

**Table 1A**

Priority Appln Information					
SEQ ID NO:	Filed	Dkt No.	SEQ ID NO:	Sequence Name	Clone Name
533	9/29/98	1494.001	6	RTA00001082F.i.07.1	M00027085C:H12
534	9/29/98	1494.001	7	RTA00001082F.i.12.1	M00027096B:A01
535	9/29/98	1494.001	8	RTA00001082F.m.12.1	M00027218C:D06
536	9/29/98	1494.001	9	RTA00001082F.p.16.1	M00027364D:E08
537	9/29/98	1494.001	10	RTA00001082F.g.22.1	M00027028B:C12
538	9/29/98	1494.001	11	RTA00001069F.e.20.1	M00026857A:F02
539	9/29/98	1494.001	12	RTA00001082F.c.05.3	M00026811A:H01
540	9/29/98	1494.001	13	RTA00001083F.c.15.1	M00027529B:B11
541	9/29/98	1494.001	14	RTA00001082F.f.08.1	M00026964C:H02
542	9/29/98	1494.001	15	RTA00001082F.o.01.1	M00027280D:H01
543	9/29/98	1494.001	16	RTA00001082F.l.05.1	M00027190B:F06
544	9/29/98	1494.001	17	RTA00001082F.l.10.1	M00027196A:A10
545	9/29/98	1494.001	18	RTA00001069F.i.06.1	M00026972A:F04
546	9/29/98	1494.001	19	RTA00001082F.o.21.1	M00027339D:E10
547	9/29/98	1494.001	20	RTA00001069F.c.13.1	M00023390A:C04
548	9/29/98	1494.001	21	RTA00001069F.g.11.1	M00026914C:H10
549	9/29/98	1494.001	22	RTA00001082F.e.21.1	M00026945B:C10
550	9/29/98	1494.001	23	RTA00001083F.a.18.1	M00027396C:B06
551	9/29/98	1494.001	24	RTA00001069F.a.21.1	M00023298B:G07
552	9/29/98	1494.001	25	RTA00001083F.a.17.1	M00027393D:F01
553	9/29/98	1494.001	26	RTA00001083F.a.23.1	M00027439B:A09
554	9/29/98	1494.001	27	RTA00001083F.e.18.1	M00027642C:D11
555	9/29/98	1494.001	28	RTA00001083F.e.04.1	M00027618A:B08
556	9/29/98	1494.001	29	RTA00001069F.j.21.1	M00027067A:B02
557	9/29/98	1494.001	30	RTA00001082F.h.20.1	M00027069D:F02
558	9/29/98	1494.001	31	RTA00001069F.o.03.1	M00027386D:C02
559	9/29/98	1494.001	32	RTA00001082F.l.04.1	M00027189C:D04
560	9/29/98	1494.001	33	RTA00001082F.o.05.1	M00027282D:G01
561	9/29/98	1494.001	34	RTA00001069F.a.11.1	M00023284B:G06
562	9/29/98	1494.001	35	RTA00001069F.n.05.1	M00027283C:H12
563	9/29/98	1494.001	36	RTA00001069F.a.22.1	M00023299B:A01
564	9/29/98	1494.001	37	RTA00001069F.h.10.1	M00026942C:A06
565	9/29/98	1494.001	38	RTA00001082F.h.19.1	M00027067B:E09
566	9/29/98	1494.001	39	RTA00001082F.b.05.1	M00023343B:C08
567	9/29/98	1494.001	40	RTA00001082F.j.05.1	M00027131C:E07
568	9/29/98	1494.001	41	RTA00001083F.b.09.1	M00027459A:G12
569	9/29/98	1494.001	42	RTA00001082F.d.07.3	M00026871C:F12
570	9/29/98	1494.001	43	RTA00001083F.c.03.1	M00027499B:G02

**Table 1A**

Priority Appln Information					
SEQ ID NO:	Filed	Dkt No.	SEQ ID NO:	Sequence Name	Clone Name
571	9/29/98	1494.001	44	RTA00001082F.f.01.1	M00026949A:F04
572	9/29/98	1494.001	45	RTA00001082F.h.12.1	M00027053C:B06
573	9/29/98	1494.001	46	RTA00001082F.a.03.1	M00023282B:H09
574	9/29/98	1494.001	47	RTA00001082F.l.03.1	M00027188A:D12
575	9/29/98	1494.001	48	RTA00001082F.k.04.1	M00027154B:D05
576	9/29/98	1494.001	49	RTA00001069F.b.18.1	M00023340A:A10
577	9/29/98	1494.001	50	RTA00001069F.o.21.1	M00027546B:A11
578	9/29/98	1494.001	51	RTA00001082F.k.01.1	M00027152D:H06
579	9/29/98	1494.001	52	RTA00001083F.a.14.1	M00027388A:G05
580	9/29/98	1494.001	53	RTA00001069F.k.01.1	M00027085A:G10
581	9/29/98	1494.001	54	RTA00001069F.h.09.1	M00026941C:E11
582	9/29/98	1494.001	55	RTA00001069F.o.11.1	M00027462D:A12
583	9/29/98	1494.001	56	RTA00001083F.a.22.1	M00027438D:A03
584	9/29/98	1494.001	57	RTA00001082F.m.21.1	M00027231C:D08
585	9/29/98	1494.001	58	RTA00001083F.f.18.1	M00027752B:E05
586	9/29/98	1494.001	59	RTA00001082F.i.03.1	M00027083C:F06
587	9/29/98	1494.001	60	RTA00001082F.n.01.1	M00027234C:B05
588	9/29/98	1494.001	61	RTA00001082F.l.02.1	M00027184D:H02
589	9/29/98	1494.001	62	RTA00001082F.k.18.1	M00027178B:E04
590	9/29/98	1494.001	63	RTA00001069F.d.09.1	M00023413D:F04
591	9/29/98	1494.001	64	RTA00001069F.p.05.1	M00027607A:A09
592	9/29/98	1494.001	65	RTA00001069F.m.14.1	M00027231A:D01
593	9/29/98	1494.001	66	RTA00001083F.c.21.1	M00027557D:B06
594	9/29/98	1494.001	67	RTA00001069F.i.23.1	M00027023B:H12
595	9/29/98	1494.001	68	RTA00001082F.l.07.1	M00027193A:F07
596	9/29/98	1494.001	69	RTA00001082F.c.15.3	M00026850B:F07
597	9/29/98	1494.001	70	RTA00001082F.f.18.1	M00026982C:D08
598	9/29/98	1494.001	71	RTA00001082F.h.17.1	M00027062C:C04
599	9/29/98	1494.001	72	RTA00001082F.p.14.1	M00027363D:A08
600	9/29/98	1494.001	73	RTA00001069F.j.04.1	M00027028A:B06
601	9/29/98	1494.001	74	RTA00001069F.p.21.1	M00027740C:C05
602	9/29/98	1494.001	75	RTA00001082F.e.07.1	M00026913D:G11
603	9/29/98	1494.001	76	RTA00001082F.d.23.3	M00026905A:G11
604	9/29/98	1494.001	77	RTA00001083F.b.18.1	M00027484A:G03
605	9/29/98	1494.001	78	RTA00001069F.o.06.1	M00027396A:F07
606	9/29/98	1494.001	79	RTA00001082F.p.01.1	M00027343B:H05
607	9/29/98	1494.001	80	RTA00001082F.p.11.1	M00027356A:H02
608	9/29/98	1494.001	81	RTA00001083F.f.19.1	M00027759B:E11

Table 1A

Priority Appln Information

SEQ ID NO:	Filed	Dkt No.	SEQ ID NO:	Sequence Name	Clone Name
609	9/29/98	1494.001	82	RTA00001082F.i.04.1	M00027083D:F06
610	9/29/98	1494.001	83	RTA00001082F.p.12.1	M00027357D:A02
611	9/29/98	1494.001	84	RTA00001082F.d.15.3	M00026882A:E07
612	9/29/98	1494.001	85	RTA00001082F.i.20.1	M00027115B:G04
613	9/29/98	1494.001	86	RTA00001069F.d.03.1	M00023401C:D12
614	9/29/98	1494.001	87	RTA00001082F.e.10.1	M00026928A:B06
615	9/29/98	1494.001	88	RTA00001082F.a.07.1	M00023295B:C03
616	9/29/98	1494.001	89	RTA00001069F.n.15.1	M00027329A:H04
617	9/29/98	1494.001	90	RTA00001082F.d.08.3	M00026872A:C10
618	9/29/98	1494.001	91	RTA00001083F.f.13.1	M00027728A:B03
619	9/29/98	1494.001	92	RTA00001082F.b.03.1	M00023340B:H12
620	9/29/98	1494.001	93	RTA00001069F.b.09.1	M00023321B:F06
621	9/29/98	1494.001	94	RTA00001082F.l.20.1	M00027202B:B09
622	9/29/98	1494.001	95	RTA00001083F.c.14.1	M00027528A:G03
623	9/29/98	1494.001	96	RTA00001069F.c.07.1	M00023369D:C05
624	9/29/98	1494.001	97	RTA00001083F.d.16.1	M00027598C:D06
625	9/29/98	1494.001	98	RTA00001069F.e.22.1	M00026858C:H05
626	9/29/98	1494.001	99	RTA00001082F.j.10.1	M00027137C:A03
627	9/29/98	1494.001	100	RTA00001069F.b.01.1	M00023301B:C01
628	9/29/98	1494.001	101	RTA00001069F.j.20.1	M00027066A:A04
629	9/29/98	1494.001	102	RTA00001069F.e.24.1	M00026861A:B05
630	9/29/98	1494.001	103	RTA00001069F.b.08.1	M00023321A:F07
631	9/29/98	1494.001	104	RTA00001069F.k.16.1	M00027131A:H02
632	9/29/98	1494.001	105	RTA00001069F.j.22.1	M00027072C:A11
633	9/29/98	1494.001	106	RTA00001069F.j.07.1	M00027036B:D07
634	9/29/98	1494.001	107	RTA00001083F.c.20.1	M00027551C:B07
635	9/29/98	1494.001	108	RTA00001069F.l.11.1	M00027169D:H06
636	9/29/98	1494.001	109	RTA00001069F.c.03.1	M00023363C:A04
637	9/29/98	1494.001	110	RTA00001069F.l.14.1	M00027175D:A05
638	9/29/98	1494.001	111	RTA00001083F.c.10.1	M00027518B:B07
639	9/29/98	1494.001	112	RTA00001082F.a.04.1	M00023287A:D08
640	9/29/98	1494.001	113	RTA00001069F.m.13.1	M00027225B:D03
641	9/29/98	1494.001	114	RTA00001082F.n.08.1	M00027250A:C04
642	9/29/98	1494.001	115	RTA00001069F.e.09.1	M00026819B:E02
643	9/29/98	1494.001	116	RTA00001082F.p.18.1	M00027369A:B03
644	9/29/98	1494.001	117	RTA00001082F.d.24.3	M00026906B:G03
645	9/29/98	1494.001	118	RTA00001069F.c.23.1	M00023398D:F10
646	9/29/98	1494.001	119	RTA00001069F.b.19.1	M00023340B:B07

Table 1A

Priority Appln Information					
SEQ ID NO:	Filed	Dkt No.	SEQ ID NO:	Sequence Name	Clone Name
647	9/29/98	1494.001	120	RTA00001082F.n.03.1	M00027237C:D04
648	9/29/98	1494.001	121	RTA00001069F.a.13.1	M00023289D:E06
649	9/29/98	1494.001	122	RTA00001069F.e.16.1	M00026846C:B01
650	9/29/98	1494.001	123	RTA00001069F.p.04.1	M00027603C:E02
651	9/29/98	1494.001	124	RTA00001069F.m.21.1	M00027248D:D01
652	9/29/98	1494.001	125	RTA00001082F.h.14.1	M00027056B:H07
653	9/29/98	1494.001	126	RTA00001069F.p.03.1	M00027592D:C05
654	9/29/98	1494.001	127	RTA00001069F.n.02.1	M00027266C:G12
655	9/29/98	1494.001	128	RTA00001082F.m.01.1	M00027209D:B09
656	9/29/98	1494.001	129	RTA00001083F.e.09.1	M00027628D:D08
657	9/29/98	1494.001	130	RTA00001069F.d.18.1	M00023432D:F09
658	9/29/98	1494.001	131	RTA00001069F.e.06.1	M00026810A:H04
659	9/29/98	1494.001	132	RTA00001069F.e.05.1	M00026809C:D10
660	9/29/98	1494.001	133	RTA00001083F.c.05.1	M00027502C:H02
661	9/29/98	1494.001	134	RTA00001069F.c.10.1	M00023373A:D01
662	9/29/98	1494.001	135	RTA00001082F.k.10.1	M00027164A:A09
663	9/29/98	1494.001	136	RTA00001083F.c.07.1	M00027507C:C06
664	9/29/98	1494.001	137	RTA00001082F.j.15.1	M00027142A:C01
665	10/8/98	1495.001	1	RTA00001079F.j.08.1	M00022217B:E03
666	10/8/98	1495.001	2	RTA00001081F.h.04.1	M00022854D:C04
667	10/8/98	1495.001	3	RTA00001078F.h.08.1	M00021624B:D03
668	10/8/98	1495.001	4	RTA00001079F.b.12.1	M00022056C:D12
669	10/8/98	1495.001	5	RTA00001066F.o.03.1	M00022074A:F05
670	10/8/98	1495.001	6	RTA00001067F.p.05.1	M00022640B:G10
671	10/8/98	1495.001	7	RTA00001079F.l.05.1	M00022260C:H07
672	10/8/98	1495.001	8	RTA00001078F.f.17.1	M00008083A:H11
673	10/8/98	1495.001	9	RTA00001079F.l.04.1	M00022259A:D04
674	10/8/98	1495.001	10	RTA00001079F.m.19.1	M00022368C:C11
675	10/8/98	1495.001	11	RTA00001081F.f.08.1	M00022831C:F11
676	10/8/98	1495.001	12	RTA00001079F.e.13.1	M00022113B:A12
677	10/8/98	1495.001	13	RTA00001081F.f.21.1	M00022838B:E05
678	10/8/98	1495.001	14	RTA00001079F.g.11.1	M00022152A:G05
679	10/8/98	1495.001	15	RTA00001067F.i.05.1	M00022392C:H06
680	10/8/98	1495.001	16	RTA00001067F.n.01.1	M00022561B:B09
681	10/8/98	1495.001	17	RTA00001080F.i.20.1	M00022569D:H03
682	10/8/98	1495.001	18	RTA00001081F.p.04.1	M00023096A:F03
683	10/8/98	1495.001	19	RTA00001078F.d.04.1	M00008023A:B03
684	10/8/98	1495.001	20	RTA00001080F.h.09.1	M00022546B:F12

Table 1A

Priority Appln Information					
SEQ ID NO:	Filed	Dkt No.	SEQ ID NO:	Sequence Name	Clone Name
685	10/8/98	1495.001	21	RTA00000631F.a.10.3	M00022362D:G11
686	10/8/98	1495.001	22	RTA00001078F.f.15.1	M00008082B:H10
687	10/8/98	1495.001	23	RTA00001078F.a.11.1	M00007948D:F08
688	10/8/98	1495.001	24	RTA00001078F.e.08.1	M00008052C:G11
689	10/8/98	1495.001	25	RTA00001078F.c.08.1	M00008012D:E07
690	10/8/98	1495.001	26	RTA00001078F.b.18.1	M00008001B:E11
691	10/8/98	1495.001	27	RTA00001078F.d.08.1	M00008023C:A06
692	10/8/98	1495.001	28	RTA00001080F.p.19.1	M00022711B:A05
693	10/8/98	1495.001	29	RTA00001078F.a.17.1	M00007965C:B02
694	10/8/98	1495.001	30	RTA00001078F.n.22.2	M00021958A:A04
695	10/8/98	1495.001	31	RTA00001079F.d.12.1	M00022090D:B03
696	10/8/98	1495.001	32	RTA00001078F.j.16.1	M00021696C:E02
697	10/8/98	1495.001	33	RTA00001080F.n.06.1	M00022655A:F09
698	10/8/98	1495.001	34	RTA00001067F.d.16.1	M00022214A:D01
699	10/8/98	1495.001	35	RTA00001078F.l.03.2	M00021865B:F06
700	10/8/98	1495.001	36	RTA00001080F.o.02.1	M00022684B:F11
701	10/8/98	1495.001	37	RTA00001067F.p.15.1	M00022652B:G06
702	10/8/98	1495.001	38	RTA00001079F.d.16.1	M00022094A:A09
703	10/8/98	1495.001	39	RTA00001068F.c.17.1	M00022826A:C08
704	10/8/98	1495.001	40	RTA00001080F.g.05.1	M00022527D:A09
705	10/8/98	1495.001	41	RTA00001081F.e.07.1	M00022813C:B09
706	10/8/98	1495.001	42	RTA00001066F.g.16.1	M00021653C:B06
707	10/8/98	1495.001	43	RTA00001066F.l.05.1	M00021972A:C10
708	10/8/98	1495.001	44	RTA00001066F.h.16.1	M00021691B:E04
709	10/8/98	1495.001	45	RTA00001081F.g.13.1	M00022844C:A01
710	10/8/98	1495.001	46	RTA00001067F.p.07.1	M00022641C:H03
711	10/8/98	1495.001	47	RTA00001080F.g.02.1	M00022525C:E09
712	10/8/98	1495.001	48	RTA00001080F.i.02.1	M00022559D:F10
713	10/8/98	1495.001	49	RTA00001080F.g.22.1	M00022541D:G06
714	10/8/98	1495.001	50	RTA00001067F.d.20.1	M00022216C:H02
715	10/8/98	1495.001	51	RTA00001079F.k.17.1	M00022252A:C01
716	10/8/98	1495.001	52	RTA00001068F.d.04.1	M00022838A:H05
717	10/8/98	1495.001	53	RTA00001079F.n.11.1	M00022377A:E02
718	10/8/98	1495.001	54	RTA00001066F.d.22.1	M00008053D:E09
719	10/8/98	1495.001	55	RTA00001068F.f.08.1	M00023002A:C02
720	10/8/98	1495.001	56	RTA00001081F.o.16.1	M00023038D:D04
721	10/8/98	1495.001	57	RTA00001080F.f.18.1	M00022518C:C04
722	10/8/98	1495.001	58	RTA00001080F.a.16.1	M00022434D:B06

**Table 1A**

Priority Appln Information

SEQ ID NO:	Filed	Dkt No.	SEQ ID NO:	Sequence Name	Clone Name
723	10/8/98	1495.001	59	RTA00001080F.j.18.1	M00022590D:E08
724	10/8/98	1495.001	60	RTA00001080F.n.11.1	M00022659B:C01
725	10/8/98	1495.001	61	RTA00001078F.e.01.1	M00008048C:A08
726	10/8/98	1495.001	62	RTA00001078F.b.07.1	M00007992A:G04
727	10/8/98	1495.001	63	RTA00001078F.b.01.1	M00007985C:G07
728	10/8/98	1495.001	64	RTA00001080F.n.14.1	M00022664A:E04
729	10/8/98	1495.001	65	RTA00001078F.o.21.2	M00021980A:F03
730	10/8/98	1495.001	66	RTA00001078F.c.06.1	M00008012B:C05
731	10/8/98	1495.001	67	RTA00001080F.o.15.1	M00022695D:B02
732	10/8/98	1495.001	68	RTA00001080F.o.16.1	M00022696A:H03
733	10/8/98	1495.001	69	RTA00001081F.a.07.2	M00022720A:C01
734	10/8/98	1495.001	70	RTA00001078F.f.22.1	M00008089C:B08
735	10/8/98	1495.001	71	RTA00001078F.g.02.1	M00008093C:G08
736	10/8/98	1495.001	72	RTA00001078F.j.13.2	M00021689A:G05
737	10/8/98	1495.001	73	RTA00001078F.l.02.2	M00021864C:C07
738	10/8/98	1495.001	74	RTA00001078F.i.14.2	M00021667C:G10
739	10/8/98	1495.001	75	RTA00001079F.d.04.1	M00022087A:D01
740	10/8/98	1495.001	76	RTA00001079F.l.09.1	M00022263A:C01
741	10/8/98	1495.001	77	RTA00001067F.o.19.1	M00022627B:D01
742	10/8/98	1495.001	78	RTA00001068F.b.01.1	M00022714B:D04
743	10/8/98	1495.001	79	RTA00001079F.f.07.1	M00022128A:C05
744	10/8/98	1495.001	80	RTA00001068F.a.03.1	M00022669D:G07
745	10/8/98	1495.001	81	RTA00001066F.f.03.1	M00008088D:B01
746	10/8/98	1495.001	82	RTA00001067F.o.18.1	M00022627A:A02
747	10/8/98	1495.001	83	RTA00001079F.k.12.1	M00022249C:G09
748	10/8/98	1495.001	84	RTA00001081F.g.07.1	M00022843A:D02
749	10/8/98	1495.001	85	RTA00001079F.j.01.1	M00022214A:H05
750	10/8/98	1495.001	86	RTA00001067F.p.10.1	M00022648D:G11
751	10/8/98	1495.001	87	RTA00001081F.f.16.1	M00022836C:A07
752	10/8/98	1495.001	88	RTA00001080F.i.05.1	M00022561D:E06
753	10/8/98	1495.001	89	RTA00001067F.l.02.1	M00022490B:G12
754	10/8/98	1495.001	90	RTA00001068F.a.23.1	M00022709A:G02
755	10/8/98	1495.001	91	RTA00001067F.d.18.1	M00022214C:E09
756	10/8/98	1495.001	92	RTA00001066F.o.05.1	M00022077D:A12
757	10/8/98	1495.001	93	RTA00001066F.m.08.1	M00022015D:C11
758	10/8/98	1495.001	94	RTA00001066F.b.12.1	M00007978B:C04
759	10/8/98	1495.001	95	RTA00001066F.c.08.1	M00008002B:F09
760	10/8/98	1495.001	96	RTA00001081F.p.05.1	M00023096C:A03

Table 1A

Priority Appln Information					
SEQ ID NO:	Filed	Dkt No.	SEQ ID NO:	Sequence Name	Clone Name
761	10/8/98	1495.001	97	RTA00001081F.c.01.1	M00022746D:D05
762	10/8/98	1495.001	98	RTA00001079F.m.23.1	M00022370A:G07
763	10/8/98	1495.001	99	RTA00001079F.m.09.1	M00022300A:A05
764	10/8/98	1495.001	100	RTA00001081F.c.21.1	M00022785C:B10
765	10/8/98	1495.001	101	RTA00001079F.o.04.1	M00022383C:F05
766	10/8/98	1495.001	102	RTA00001080F.b.10.1	M00022449D:B05
767	10/8/98	1495.001	103	RTA00001078F.c.09.1	M00008012D:H04
768	10/8/98	1495.001	104	RTA00001078F.d.19.1	M00008044C:A05
769	10/8/98	1495.001	105	RTA00001081F.a.11.2	M00022722D:C07
770	10/8/98	1495.001	106	RTA00001080F.n.15.1	M00022664C:G10
771	10/8/98	1495.001	107	RTA00001078F.a.09.1	M00007941D:D07
772	10/8/98	1495.001	108	RTA00001078F.g.20.1	M00021614A:C09
773	10/8/98	1495.001	109	RTA00001066F.h.23.1	M00021841A:E11
774	10/8/98	1495.001	110	RTA00001081F.l.11.2	M00022922D:G06
775	10/8/98	1495.001	111	RTA00001079F.d.18.1	M00022096B:D10
776	10/8/98	1495.001	112	RTA00001066F.f.21.1	M00008100D:C08
777	10/8/98	1495.001	113	RTA00001078F.j.06.1	M00021680D:H08
778	10/8/98	1495.001	114	RTA00001067F.d.08.1	M00022205A:C02
779	10/8/98	1495.001	115	RTA00001068F.b.05.1	M00022717C:F05
780	10/8/98	1495.001	116	RTA00001079F.c.05.1	M00022071D:C08
781	10/8/98	1495.001	117	RTA00001078F.k.10.2	M00021852C:D12
782	10/8/98	1495.001	118	RTA00001081F.i.18.2	M00022884D:A07
783	10/8/98	1495.001	119	RTA00001066F.b.21.1	M00007996C:B11
784	10/8/98	1495.001	120	RTA00001066F.i.08.1	M00021851D:H06
785	10/8/98	1495.001	121	RTA00001068F.e.08.1	M00022915C:C09
786	10/8/98	1495.001	122	RTA00001079F.j.15.1	M00022220B:B06
787	10/8/98	1495.001	123	RTA00001078F.j.18.2	M00021698A:H03
788	10/8/98	1495.001	124	RTA00001066F.b.09.1	M00007977B:C11
789	10/8/98	1495.001	125	RTA00001079F.i.20.1	M00022207C:C01
790	10/8/98	1495.001	126	RTA00001080F.e.15.1	M00022506D:B03
791	10/8/98	1495.001	127	RTA00001080F.l.03.1	M00022617B:A01
792	10/8/98	1495.001	128	RTA00001080F.e.10.1	M00022501D:A09
793	10/8/98	1495.001	129	RTA00001067F.c.22.1	M00022184D:F07
794	10/8/98	1495.001	130	RTA00001081F.p.11.1	M00023097A:C03
795	10/8/98	1495.001	131	RTA00001081F.p.08.1	M00023096D:B11
796	10/8/98	1495.001	132	RTA00001080F.c.19.1	M00022471D:A05
797	10/8/98	1495.001	133	RTA00001081F.b.06.1	M00022736B:B03
798	10/8/98	1495.001	134	RTA00001081F.m.22.1	M00022983A:H04



Table 1A

Priority Appln Information

SEQ ID NO:	Filed	Dkt No.	SEQ ID NO:	Sequence Name	Clone Name
799	10/8/98	1495.001	135	RTA00001081F.d.11.1	M00022801A:G04
800	10/8/98	1495.001	136	RTA00001081F.n.13.1	M00023002D:C12
801	10/8/98	1495.001	137	RTA00001067F.d.17.1	M00022214C:C11
802	10/8/98	1495.001	138	RTA00001081F.c.13.1	M00022772A:A06
803	10/8/98	1495.001	139	RTA00001078F.b.19.1	M00008001D:F11
804	10/8/98	1495.001	140	RTA00001078F.a.04.1	M00007931A:B07
805	10/8/98	1495.001	141	RTA00001078F.b.16.1	M00008000D:G11
806	10/8/98	1495.001	142	RTA00001078F.b.04.1	M00007987A:D10
807	10/8/98	1495.001	143	RTA00001078F.d.18.1	M00008044B:F07
808	10/8/98	1495.001	144	RTA00001068F.e.05.1	M00022904D:D04
809	10/8/98	1495.001	145	RTA00001078F.i.18.1	M00021674A:B07
810	10/8/98	1495.001	146	RTA00001066F.e.01.1	M00008054C:C03
811	10/8/98	1495.001	147	RTA00001078F.n.14.2	M00021949D:A05
812	10/8/98	1495.001	148	RTA00001067F.i.17.1	M00022413B:D07
813	10/8/98	1495.001	149	RTA00001079F.l.19.1	M00022278C:E04
814	10/8/98	1495.001	150	RTA00001081F.l.12.2	M00022923A:A09
815	10/8/98	1495.001	151	RTA00001067F.j.03.1	M00022420B:C08
816	10/8/98	1495.001	152	RTA00001068F.d.19.1	M00022898C:H07
817	10/8/98	1495.001	153	RTA00001081F.g.23.1	M00022853D:C05
818	10/8/98	1495.001	154	RTA00001081F.h.16.1	M00022860A:A07
819	10/8/98	1495.001	155	RTA00001079F.i.05.1	M00022192B:H07
820	10/8/98	1495.001	156	RTA00001068F.f.12.1	M00023012A:C06
821	10/8/98	1495.001	157	RTA00001067F.e.09.1	M00022235D:F07
822	10/8/98	1495.001	158	RTA00001066F.m.10.1	M00022018B:E09
823	10/8/98	1495.001	159	RTA00001080F.j.19.1	M00022591C:F03
824	10/8/98	1495.001	160	RTA00001080F.f.07.1	M00022513C:G04
825	10/8/98	1495.001	161	RTA00001080F.e.09.1	M00022500B:D01
826	10/8/98	1495.001	162	RTA00001080F.e.19.1	M00022509D:A12
827	10/8/98	1495.001	163	RTA00001066F.a.13.1	M00007948B:B07
828	10/8/98	1495.001	164	RTA00001079F.p.14.1	M00022407D:G07
829	10/8/98	1495.001	165	RTA00001079F.p.03.1	M00022399C:B02
830	10/8/98	1495.001	166	RTA00001079F.n.22.1	M00022381B:C12
831	10/8/98	1495.001	167	RTA00001078F.a.06.1	M00007937C:E08
832	10/8/98	1495.001	168	RTA00001078F.a.19.1	M00007973D:B03
833	10/8/98	1495.001	169	RTA00001078F.b.15.1	M00008000D:B06
834	10/8/98	1495.001	170	RTA00001079F.c.15.1	M00022078B:B04
835	10/8/98	1495.001	171	RTA00001079F.d.06.1	M00022088B:E05
836	10/8/98	1495.001	172	RTA00001067F.a.05.1	M00022118A:D08

Table 1A

Priority Appln Information					
SEQ ID NO:	Filed	Dkt No.	SEQ ID NO:	Sequence Name	Clone Name
837	10/8/98	1495.001	173	RTA00001078F.i.15.2	M00021668D:G09
838	10/8/98	1495.001	174	RTA00001066F.a.11.1	M00007947B:F07
839	10/8/98	1495.001	175	RTA00001078F.k.02.2	M00021846B:F05
840	10/8/98	1495.001	176	RTA00001066F.h.04.1	M00021669B:G02
841	10/8/98	1495.001	177	RTA00001066F.c.21.1	M00008015B:D08
842	10/8/98	1495.001	178	RTA00001080F.h.06.1	M00022544C:D08
843	10/8/98	1495.001	179	RTA00001067F.c.16.1	M00022177D:G02
844	10/8/98	1495.001	180	RTA00001080F.f.21.1	M00022522B:A05
845	10/8/98	1495.001	181	RTA00001080F.a.10.1	M00022425A:F11
846	10/8/98	1495.001	182	RTA00001081F.o.10.1	M00023034B:B10
847	10/8/98	1495.001	183	RTA00001078F.b.17.1	M00008001A:G11
848	10/8/98	1495.001	184	RTA00001078F.g.04.1	M00008094D:C02
849	10/8/98	1495.001	185	RTA00001080F.p.05.1	M00022704A:H08
850	10/8/98	1495.001	186	RTA00001067F.f.04.1	M00022256D:G11
851	10/8/98	1495.001	187	RTA00001066F.c.11.1	M00008003B:F09
852	10/8/98	1495.001	188	RTA00001081F.b.19.1	M00022743C:G05
853	10/8/98	1495.001	189	RTA00001081F.p.14.1	M00023097C:D10
854	10/8/98	1495.001	190	RTA00001067F.k.16.1	M00022467C:H07
855	10/8/98	1495.001	191	RTA00001081F.b.11.1	M00022737D:B02
856	10/8/98	1495.001	192	RTA00001080F.k.12.1	M00022601A:A09
857	10/8/98	1495.001	193	RTA00001066F.a.08.1	M00007943C:B02
858	10/8/98	1495.001	194	RTA00001081F.b.10.1	M00022737B:F12
859	10/8/98	1495.001	195	RTA00001080F.d.15.1	M00022488C:H02
860	10/8/98	1495.001	196	RTA00001079F.p.04.1	M00022399D:A07
861	10/8/98	1495.001	197	RTA00001067F.e.23.1	M00022251A:F07
862	10/8/98	1495.001	198	RTA00001068F.a.08.1	M00022684C:C12
863	10/8/98	1495.001	199	RTA00001078F.h.16.1	M00021628C:B09
864	10/8/98	1495.001	200	RTA00001081F.g.18.1	M00022848D:H09
865	10/8/98	1495.001	201	RTA00001081F.m.15.1	M00022968D:G06
866	10/8/98	1495.001	202	RTA00001067F.k.09.1	M00022459C:G05
867	10/8/98	1495.001	203	RTA00001080F.g.04.1	M00022527B:H05
868	10/8/98	1495.001	204	RTA00001081F.j.19.2	M00022902C:F11
869	10/8/98	1495.001	205	RTA00001081F.o.03.1	M00023023B:A05
870	10/8/98	1495.001	206	RTA00001079F.b.23.1	M00022067A:B03
871	10/8/98	1495.001	207	RTA00001078F.n.16.2	M00021951B:A01
872	10/8/98	1495.001	208	RTA00001067F.b.01.1	M00022134D:D12
873	10/8/98	1495.001	209	RTA00001080F.a.17.1	M00022435C:C05
874	10/8/98	1495.001	210	RTA00001080F.c.17.1	M00022469A:A05

Table 1A

Priority Appln Information

SEQ ID NO:	Filed	Dkt No.	SEQ ID NO:	Sequence Name	Clone Name
875	10/8/98	1495.001	211	RTA00001068F.f.10.1	M00023003C:C10
876	10/8/98	1495.001	212	RTA00001081F.h.18.1	M00022861C:B04
877	10/8/98	1495.001	213	RTA00001066F.p.19.1	M00022106D:B06
878	10/8/98	1495.001	214	RTA00001080F.c.09.1	M00022464D:F12
879	10/8/98	1495.001	215	RTA00001078F.c.12.1	M00008014C:H01
880	10/8/98	1495.001	216	RTA00001080F.l.10.1	M00022622A:E08
881	10/8/98	1495.001	217	RTA00001078F.g.11.1	M00008099A:C12
882	10/8/98	1495.001	218	RTA00001068F.f.09.1	M00023003A:H01
883	10/8/98	1495.001	219	RTA00001067F.f.10.1	M00022261C:D06
884	10/8/98	1495.001	220	RTA00001080F.o.05.1	M00022687C:C11
885	10/8/98	1495.001	221	RTA00001078F.h.04.1	M00021620D:B06
886	10/8/98	1495.001	222	RTA00001078F.p.03.2	M00021981D:A11
887	10/8/98	1495.001	223	RTA00001080F.e.20.1	M00022510A:B09
888	10/8/98	1495.001	224	RTA00001078F.k.19.2	M00021861C:B08
889	10/8/98	1495.001	225	RTA00001078F.d.20.1	M00008045A:B05
890	10/8/98	1495.001	226	RTA00001078F.b.22.1	M00008006A:H02
891	10/8/98	1495.001	227	RTA00001068F.a.13.1	M00022701C:A05
892	10/8/98	1495.001	228	RTA00001080F.m.16.1	M00022641D:F08
893	10/8/98	1495.001	229	RTA00001080F.o.22.1	M00022702A:D10
894	10/8/98	1495.001	230	RTA00001080F.k.16.1	M00022604A:F06
895	10/8/98	1495.001	231	RTA00001067F.d.04.1	M00022199A:F09
896	10/8/98	1495.001	232	RTA00001067F.k.10.1	M00022460C:E12
897	10/8/98	1495.001	233	RTA00001078F.n.04.2	M00021931B:F04
898	10/8/98	1495.001	234	RTA00001078F.n.07.2	M00021945A:B04
899	10/8/98	1495.001	235	RTA00001081F.a.16.1	M00022725D:G05
900	10/8/98	1495.001	236	RTA00001078F.l.13.2	M00021879B:C11
901	10/8/98	1495.001	237	RTA00001078F.f.13.1	M00008082B:C05
902	10/8/98	1495.001	238	RTA00001079F.d.05.1	M00022087D:F12
903	10/8/98	1495.001	239	RTA00001067F.i.13.1	M00022406C:G03
904	10/8/98	1495.001	240	RTA00001068F.d.23.1	M00022902B:F10
905	10/8/98	1495.001	241	RTA00001078F.c.13.1	M00008014D:A11
906	10/8/98	1495.001	242	RTA00001078F.a.18.1	M00007969B:E10
907	10/8/98	1495.001	243	RTA00001068F.b.23.1	M00022765B:E03
908	10/8/98	1495.001	244	RTA00001078F.f.21.1	M00008085B:G01
909	10/8/98	1495.001	245	RTA00001067F.b.15.1	M00022144D:D09
910	10/8/98	1495.001	246	RTA00001078F.o.04.2	M00021963C:H04
911	10/8/98	1495.001	247	RTA00001081F.e.14.1	M00022817D:B09
912	10/8/98	1495.001	248	RTA00001078F.k.04.2	M00021847B:A09

Table 1A

## Priority Appln Information

SEQ ID NO:	Filed	Dkt No.	SEQ ID NO:	Sequence Name	Clone Name
913	10/8/98	1495.001	249	RTA00001079F.g.15.2	M00022158C:C08
914	10/8/98	1495.001	250	RTA00001067F.k.23.1	M00022477C:C07
915	10/8/98	1495.001	251	RTA00001079F.h.08.2	M00022176A:F02
916	10/8/98	1495.001	252	RTA00001078F.d.17.1	M00008028D:B01
917	10/8/98	1495.001	253	RTA00001067F.d.07.1	M00022203B:A05
918	10/8/98	1495.001	254	RTA00001068F.e.04.1	M00022903D:H02
919	10/8/98	1495.001	255	RTA00001068F.a.06.1	M00022682A:F10
920	10/8/98	1495.001	256	RTA00001078F.e.10.1	M00008054C:E07
921	10/8/98	1495.001	257	RTA00001079F.b.11.1	M00022056B:G12
922	10/8/98	1495.001	258	RTA00001066F.h.11.1	M00021676B:B12
923	10/8/98	1495.001	259	RTA00001079F.d.01.1	M00022084B:C03
924	10/8/98	1495.001	260	RTA00001067F.g.14.1	M00022363C:D03
925	10/8/98	1495.001	261	RTA00001066F.g.06.1	M00021625B:G07
926	10/8/98	1495.001	262	RTA00001081F.j.09.2	M00022893D:C06
927	10/8/98	1495.001	263	RTA00001068F.e.19.1	M00022963A:E07
928	10/8/98	1495.001	264	RTA00001079F.l.21.1	M00022282A:A11
929	10/8/98	1495.001	265	RTA00001078F.h.09.1	M00021624B:E11
930	10/8/98	1495.001	266	RTA00001078F.d.16.1	M00008027D:H09
931	10/8/98	1495.001	267	RTA00001079F.g.22.2	M00022167B:H02
932	10/8/98	1495.001	268	RTA00001066F.e.15.1	M00008075D:B01
933	10/8/98	1495.001	269	RTA00001080F.g.16.1	M00022538D:B02
934	10/8/98	1495.001	270	RTA00001080F.b.07.1	M00022447A:H06
935	10/8/98	1495.001	271	RTA00001078F.n.21.2	M00021958A:A03
936	10/8/98	1495.001	272	RTA00001078F.b.12.1	M00007998C:B04
937	10/8/98	1495.001	273	RTA00001066F.p.01.2	M00022099C:A10
938	10/8/98	1495.001	274	RTA00001066F.o.22.1	M00022095C:F03
939	10/8/98	1495.001	275	RTA00001080F.i.19.1	M00022568B:D03
940	10/8/98	1495.001	276	RTA00001079F.g.01.1	M00022138C:B07
941	10/8/98	1495.001	277	RTA00001079F.e.02.1	M00022102D:A10
942	10/8/98	1495.001	278	RTA00001079F.k.01.1	M00022233C:D11
943	10/8/98	1495.001	279	RTA00001079F.o.11.1	M00022386D:C04
944	10/8/98	1495.001	280	RTA00001068F.d.02.1	M00022834A:H02
945	10/8/98	1495.001	281	RTA00001078F.a.07.1	M00007939A:F06
946	10/8/98	1495.001	282	RTA00001081F.b.20.1	M00022743C:G06
947	10/8/98	1495.001	283	RTA00001067F.f.20.1	M00022273A:B03
948	10/8/98	1495.001	284	RTA00001079F.c.06.1	M00022072D:E12
949	10/8/98	1495.001	285	RTA00001068F.b.24.1	M00022768A:A10
950	10/8/98	1495.001	286	RTA00001080F.o.08.1	M00022691A:G01

Table 1A

Priority Appln Information

SEQ ID NO:	Filed	Dkt No.	SEQ ID NO:	Sequence Name	Clone Name
951	10/8/98	1495.001	287	RTA00001078F.j.10.2	M00021687C:A04
952	10/8/98	1495.001	288	RTA00001080F.b.03.1	M00022444B:C04
953	10/8/98	1495.001	289	RTA00001067F.e.13.1	M00022240C:B03
954	10/8/98	1495.001	290	RTA00001081F.h.05.1	M00022856A:B09
955	10/8/98	1495.001	291	RTA00001067F.f.01.1	M00022252C:A04
956	10/8/98	1495.001	292	RTA00001080F.g.23.1	M00022542A:B06
957	10/8/98	1495.001	293	RTA00001080F.h.16.1	M00022548A:F02
958	10/8/98	1495.001	294	RTA00001080F.f.15.1	M00022517C:B01
959	10/8/98	1495.001	295	RTA00001080F.f.06.1	M00022513C:E10
960	10/8/98	1495.001	296	RTA00001081F.a.04.2	M00022716A:C01
961	10/8/98	1495.001	297	RTA00001078F.p.16.2	M00022001B:H10
962	10/8/98	1495.001	298	RTA00001081F.b.03.1	M00022734C:A03
963	10/8/98	1495.001	299	RTA00001080F.a.21.1	M00022441B:A06
964	10/8/98	1495.001	300	RTA00001079F.f.05.1	M00022127C:E01
965	10/8/98	1495.001	301	RTA00001080F.n.23.1	M00022681D:H10
966	10/8/98	1495.001	302	RTA00001078F.c.18.1	M00008016C:E06
967	10/8/98	1495.001	303	RTA00001068F.a.11.1	M00022697A:C08
968	10/8/98	1495.001	304	RTA00001068F.g.09.1	M00023095C:A09
969	10/8/98	1495.001	305	RTA00001068F.a.22.1	M00022709A:C01
970	10/8/98	1495.001	306	RTA00001079F.h.09.2	M00022176D:F05
971	10/8/98	1495.001	307	RTA00001079F.h.01.2	M00022169A:E11
972	10/8/98	1495.001	308	RTA00001078F.g.07.1	M00008097C:E04
973	10/8/98	1495.001	309	RTA00001078F.m.08.2	M00021908B:F03
974	10/8/98	1495.001	310	RTA00001080F.a.03.1	M00022417B:C01
975	10/8/98	1495.001	311	RTA00001079F.o.06.1	M00022384B:E06
976	10/8/98	1495.001	312	RTA00001079F.p.06.1	M00022401C:G07
977	10/8/98	1495.001	313	RTA00001078F.p.18.2	M00022001D:E06
978	10/8/98	1495.001	314	RTA00001068F.a.17.1	M00022705B:F08
979	10/8/98	1495.001	315	RTA00001078F.a.10.1	M00007948C:G01
980	10/8/98	1495.001	316	RTA00001079F.h.20.2	M00022184D:H07
981	10/8/98	1495.001	317	RTA00001081F.n.03.1	M00022986B:C02
982	10/8/98	1495.001	318	RTA00001080F.c.04.1	M00022460D:C07

**Table 1B**

SEQ ID NO:	Sample Name	Clone ID
983	270.F5.sp6:145120	M00001401B:A02
984	344.C4.sp6:146251	M00023363C:A04
985	628.D9.sp6:157832	M00008028D:B01
986	628.F7.sp6:157854	M00008023C:A06
987	636.G12.sp6:158255	M00022077D:A12
988	653.F3.sp6:159004	M00023284B:G06
989	654.H6.sp6:159223	M00023369D:C05
990	655.B2.sp6:156468	M00023413D:F04
991	656.B11.sp6:159348	M00026905A:G11
992	661.C10.sp6:159743	M00027169D:H06
993	953.B04.sp6:185140	M00005434D:H02
994	270.F5.sp6:145120	M00001401B:A02
995	344.C4.sp6:146251	M00023363C:A04
996	655.B2.sp6:156468	M00023413D:F04

**Table 1C**

SEQ ID NO:	Sequence Name	THC Accession No.
997	RTA00001071F.i.23.3	AA173046
998	RTA00001079F.m.19.1	THC220786
999	RTA00001067F.i.05.1	THC233199
1000	RTA00001082F.o.01.1	THC178783
1001	RTA00001067F.n.01.1	AA173079
1002	RTA00001076F.b.13.1	AA554659
1003	RTA00001064F.p.03.1	AA432284
1004	RTA00001072F.g.05.2	H20612
1005	RTA00001064F.c.01.1	EST55879
1006	RTA00001083F.b.09.1	W30744
1007	RTA00001083F.c.03.1	THC205070
1008	RTA00001066F.h.16.1	EST14169
1009	RTA00001076F.n.10.1	THC144372
1010	RTA00001061F.e.17.1	N48670
1011	RTA00001071F.m.09.3	R56510
1012	RTA00001080F.g.02.1	THC77700
1013	RTA00001073F.i.02.2	Z46186
1014	RTA00001076F.j.14.1	THC144372
1015	RTA00001068F.d.04.1	AA011604
1016	RTA00001069F.o.11.1	AA576259
1017	RTA00001073F.k.01.1	R52934
1018	RTA00001080F.f.18.1	THC126698
1019	RTA00001075F.e.18.1	THC209874
1020	RTA00001076F.d.13.1	AA158197
1021	RTA00001065F.f.06.1	THC219476

SEQ ID NO:	Sequence Name	THC Accession No.
1022	RTA00001068F.b.01.1	THC151511
1023	RTA00001068F.a.03.1	THC220020
1024	RTA00001072F.b.09.2	AA554360
1025	RTA00001076F.i.09.1	EST20991
1026	RTA00001073F.l.04.1	AA527712
1027	RTA00001067F.d.18.1	THC198501
1028	RTA00001082F.b.03.1	THC218291
1029	RTA00001082F.l.20.1	THC204015
1030	RTA00001081F.c.21.1	THC203534
1031	RTA00001069F.b.08.1	THC234347
1032	RTA00001074F.f.09.1	N53623
1033	RTA00001066F.h.23.1	THC129284
1034	RTA00001064F.h.07.1	THC161794
1035	RTA00001066F.f.21.1	T92493
1036	RTA00001069F.m.13.1	AA148143
1037	RTA00001064F.d.14.1	THC138642
1038	RTA00001068F.e.08.1	AA633643
1039	RTA00001065F.d.19.1	THC227618
1040	RTA00001069F.e.06.1	T19066
1041	RTA00001069F.e.05.1	T19066
1042	RTA00001082F.j.15.1	THC226714
1043	RTA00001067F.i.17.1	EST83778
1044	RTA00001081F.l.12.2	AA121009
1045	RTA00001080F.e.19.1	T99190
1046	RTA00001065F.d.18.2	H59526
1047	RTA00001078F.a.06.1	AA453802
1048	RTA00001065F.a.21.1	THC86626
1049	RTA00001075F.a.02.1	AA632565
1050	RTA00001066F.c.21.1	AA465322
1051	RTA00001080F.h.06.1	THC232157
1052	RTA00001067F.b.01.1	EST79811
1053	RTA00001071F.l.19.1	THC208816
1054	RTA00001062F.f.01.1	THC105335
1055	RTA00001063F.g.18.1	THC205088
1056	RTA00001062F.j.18.1	THC220715
1057	RTA00001078F.b.22.1	THC232576
1058	RTA00001064F.a.09.2	THC171312
1059	RTA00001064F.k.20.2	THC200994
1060	RTA00001080F.m.16.1	EST62430
1061	RTA00001078F.n.04.2	THC231131
1062	RTA00001071F.p.07.1	AA524115
1063	RTA00001074F.k.15.1	AA053768
1064	RTA00001073F.g.22.1	THC146930

SEQ ID NO:	Sequence Name	THC Accession No.
1065	RTA00001067F.k.23.1	THC211481
1066	RTA00001068F.a.06.1	THC232664
1067	RTA00001067F.g.14.1	THC110314
1068	RTA00001072F.i.19.3	EST84170
1069	RTA00001079F.g.22.2	THC146930
1070	RTA00001061F.j.03.1	THC195525
1071	RTA00001072F.c.16.2	AA159011
1072	RTA00001061F.c.12.1	THC196151
1073	RTA00001072F.j.23.2	N99474
1074	RTA00001080F.f.06.1	R06925
1075	RTA00001080F.a.21.1	THC173393
1076	RTA00001068F.a.11.1	THC202663
1077	RTA00001078F.g.07.1	EST89489
1078	RTA00001078F.m.08.2	THC233725
1079	RTA00001068F.a.17.1	N86176



**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
1	NM_005757.1	Homo sapiens C3H-type zinc finger protein; similar to D. melanogaster muscleblind B protein (MBLL) mRNA >gi 3779239 gb AF061261 AF061261 Homo sapiens zinc finger protein (MBLL) mRNA, complete cds	7.00E-99
5	M86697	Peptostreptococcus magnus protein L gene, complete cds.	1.90E+00
6	AF080255.1	Homo sapiens lodestar protein mRNA, complete cds	1.00E-37
7	Z95310	Caenorhabditis elegans cosmid H40L08, complete sequence [Caenorhabditis elegans]	2.00E+00
9	AF124981.1	Bombyx mori nuclear receptor GRF (GRF) mRNA, complete cds	1.90E+00
10	U43663	Xenopus laevis transposon TXr.11 transposase pseudogene, complete cds	4.20E+00
11	AE001495	Helicobacter pylori, strain J99 section 56 of 132 of the complete genome	2.00E+00
12	AB031040.1	Mus musculus mLhx6.1a mRNA for LIM-homeodomain (LHX) protein 6.1a, complete cds	1.00E-79
13	AF132973.1	Homo sapiens CGI-39 protein mRNA, complete cds	2.00E-30
14	L81907	Homo sapiens (subclone 1_c12 from P1 H69) DNA sequence	2.00E+00
15	AE001543	Helicobacter pylori, strain J99 section 104 of 132 of the complete genome	8.00E-03
16	L42167	Mus musculus (clone R24) rds gene, partial cds	4.70E-01
17	U58870	Bos taurus carbonic anhydrase IV mRNA, complete cds	6.80E-01
18	AB025187.1	Oryza sativa mRNA for cytochrome c oxidase subunit 6b-1, complete cds	2.30E-01
19	AE000723	Aquifex aeolicus section 55 of 109 of the complete genome	6.80E-01
20	U72058	Mus musculus chloride channel regulator (IcIn) gene, exon 2 and partial cds	6.80E-01
21	U24698	Aspergillus parasiticus norsolorinic acid reductase (nor) gene, complete cds	6.50E-01
22	AB014528	Homo sapiens mRNA for KIAA0628 protein, complete cds	0.00E+00
23	X90691	M.morganii DNA for orf3, orf4, orf5, orf6, orf7, orf8, orf9, and rumA & rumB genes	2.00E+00
25	U24098	Macaca fascicularis eosinophil cationic protein gene, complete cds	6.60E-01
27	U19355	Rattus norvegicus satellite sequence d0Mco3.	6.60E-01
28	U39655	Caenorhabditis elegans cosmid C46F4	1.90E+00
29	M34463	Rat S-adenosylmethionine decarboxylase (AMDP1) pseudogene, complete cds.	1.90E+00

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
30	AB028898.1	Mus musculus mRNA for U8, complete cds	7.00E-43
31	M19547	D.melanogaster (strain Af-S) alcohol dehydrogenase gene (allele Adh-S), complete cds.	2.00E+00
32	AB029001.1	Homo sapiens mRNA for KIAA1078 protein, partial cds	e-158
33	AF063668.1	Mus musculus type XIII collagen (col13a1) gene, exon 3	2.10E+00
34	X07356	Chicken nicotinic acetylcholine receptor non-alpha gene exon 5	6.60E-01
35	U69609	Human transcriptional repressor (GCF2) mRNA, complete cds	1.80E+00
36	AF041861	Mus musculus synaptojanin 2 isoform zeta mRNA, partial cds	1.90E+00
37	AB028975.1	Homo sapiens mRNA for KIAA1052 protein, complete cds	1.90E+00
38	AF046000	Mus musculus rod cGMP phosphodiesterase delta subunit (Pde6d) gene, complete cds	5.50E-01
39	L09705	Human DNA sequence.	6.10E-01
41	AF052692	Homo sapiens connexin 31 (GJB3) mRNA, complete cds	e-132
42	Z80214	Caenorhabditis elegans cosmid C27D8, complete sequence [Caenorhabditis elegans]	4.70E-01
43	M95520	Streptococcus canis (group G) albumin-binding protein gene, partial cds.	2.30E-01
44	AE001392	Plasmodium falciparum chromosome 2, section 29 of 73 of the complete sequence	7.70E-02
45	AF112187	Mus musculus epithelial sodium channel gamma subunit mRNA, complete cds	2.10E+00
46	M31616	O.sativa ADPglucose pyrophosphorylase gene, complete cds.	2.30E-01
47	U20734	Human transcription factor junB (junB) gene, 5' region and complete cds.	2.30E-01
48	U35782	Anopheles bwambae 12S ribosomal RNA, D-loop, and tRNA-Ile mitochondrial genes, partial sequence.	2.30E-01
49	AF138280.1	Gallus gallus chondromodulin-I mRNA, complete cds	3.00E-03
50	AE001392	Plasmodium falciparum chromosome 2, section 29 of 73 of the complete sequence	7.60E-02
52	D45385	Pokeweed mRNA for polyphenol oxidase, complete cds	2.20E-01
53	J04804	C.elegans vinculin (deb-1) gene, complete cds.	2.20E-01
54	M34431	Human PVT-IGLC fusion protein mRNA, 5' end.	6.70E-01
55	L05634	Bacillus subtilis ORF1, 3' end; wall-associated protein (walA) gene, complete cds; complete ORF3.	6.50E-01

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
56	X82430	E.coli transposable element IS1294	2.20E-01
57	AJ224356	Solanum lycopersicon tDET1 gene	6.70E-01
58	U07792	Human tyrosine kinase (TXK) gene, exon 8, partial cds. >gi 1161352 gb U34371 HSTECTXT05 Human tyrosine kinase TXK (txk) gene, exon 5.	6.60E-01
59	D87559	Bos taurus mRNA for platelet-activating factor acetylhydrolase 2, complete cds	2.20E-01
60	U45427	Borrelia burgdorferi 2.9-7 locus, ORF-A-D, REV, and lipoprotein (LPA and LPB) genes, complete cds	6.60E-01
61	AB018343.1	Homo sapiens mRNA for KIAA0800 protein, complete cds	e-177
62	X92186	M.musculus 11beta-hydroxysteroid dehydrogenase type 1 gene	0.66
63	U51899	Human kappa-casein gene, complete cds	0.65
64	S62069	cathepsin B {5' region} [human, Genomic, 886 nt, segment 1 of 2]	0.22
65	M26198	Bovine ASS mRNA encoding argininosuccinate synthetase, complete cds.	0.22
66	AE001628	Chlamydia pneumoniae section 44 of 103 of the complete genome	2.20E-01
67	AF097906	Rana catesbeiana myosin heavy chain (MHC-3) mRNA, partial cds	6.40E-01
68	AE001023	Archaeoglobus fulgidus section 84 of 172 of the complete genome	2.30E-01
69	U11682	Trypanoplasma borelli mitochondrion cytochrome oxidase subunit 1 (cox1), cytochrome oxidase subunit 2 and complete 9S rRNA gene and partial 12S rRNA gene.	6.40E-01
70	J03267	Rat atrial natriuretic factor (ANF) gene, 5' end.	6.40E-01
71	AL034546.5	Human DNA sequence from clone 898I4 on chromosome 22q13.33. Contains a GSS and a putative CpG island, complete sequence [Homo sapiens]	6.20E-01
72	U78730	Homo sapiens mad protein homolog Smad2 gene, exon 7	1.90E-01
73	D87686.1	Homo sapiens mRNA for KIAA0017 protein, complete cds	e-175
74	AF085361.1	Homo sapiens HSPC032 mRNA, complete cds	2.00E-55
75	AF168786.1	Sorghum bicolor soluble starch synthase mRNA, partial cds	2.50E-02
76	Z99102	Caenorhabditis elegans cosmid B0331, complete sequence [Caenorhabditis elegans]	7.40E-02
77	AE001247	Treponema pallidum section 63 of 87 of the complete genome	2.30E-01

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
78	U20734	Human transcription factor junB (junB) gene, 5' region and complete cds.	5.00E-08
79	X92112	G.gallus mRNA for guanylate-binding protein	7.50E-02
80	AF043692	Caenorhabditis elegans cosmid C17F3	2.00E+00
81	D88260	Pisum sativum PsCHS4 gene for chalcone synthase, complete cds	6.70E-01
82	D87433	Human mRNA for KIAA0246 gene, partial cds	2.30E-01
83	X70301	S.lemnae internal telomeric sequence maa81	2.30E-01
84	AB018249	Homo sapiens gene for CC chemokine LEC, complete cds	7.50E-02
85	D32072	Mouse mRNA for an isoform of TGF-b type II receptor	7.40E-02
86	AB018317.1	Homo sapiens mRNA for KIAA0774 protein, partial cds	1.90E+00
87	Z46372	R.norvegicus RNA for DNA topoisomerase II	7.20E-02
88	NM_003958.1	Homo sapiens C3HC4-type zinc finger protein sapiens mRNA for KIAA0646 protein, complete cds	6.50E-01
89	AF005655	Eschscholzia californica berberine bridge enzyme (bbe1) gene, complete cds	7.70E-02
90	AF042192	Xenopus laevis paraxial protocadherin mRNA, complete cds	6.20E-01
91	Y12002	N.crassa DNA for protein kinase C homologue	2.20E-01
92	AF077697	HIV-1 isolate DW.s.0 from Switzerland pol protein (pol) gene, partial cds	2.00E-01
93	L31848	Homo sapiens serine/threonine kinase receptor 2	6.00E-11
94	AF047707	Rattus norvegicus UDP-glucose:ceramide glycosyltransferase mRNA, complete cds	6.00E-01
95	X92112	G.gallus mRNA for guanylate-binding protein	7.10E-02
96	X82333	H.sapiens IRLB gene (exon1-3)	5.30E-02
97	AJ228139.2	Homo sapiens mRNA for LETKI precursor	2.00E-97
98	M13075	Human albumin gene, exon 1 and 5' flank.	1.40E+00
99	AF025430	Papaver somniferum berberine bridge enzyme	2.90E-01
100	X92346	M.musculus mRNA for CART1 protein	1.70E-02
102	AE001367	Plasmodium falciparum chromosome 2, section 4 of 73 of the complete sequence	2.50E-02
103	AB014524	Homo sapiens mRNA for KIAA0624 protein, partial cds	0.00E+00
104	AB007546	Homo sapiens gene for LECT2, complete cds	2.20E-01
105	AF060492	Buchnera aphidicola succinyl-diaminopimelate aminotransferase (dapD) gene, partial cds; periplasmic serine protease (htrA), hypothetical protein, acetohydroxy acid synthase large subunit (ilvI), acetohydroxy acid synthas...	7.50E-02
106	D16360	Human DNA for plasma glutathione peroxidase, exon 1	2.50E-02

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
107	AB002287	Wolbachia sp. DNA for GroES protein homolog, GroEL protein homolog, partial cds	6.60E-01
108	X16349	Human gene for sex hormone-binding globulin (SHBG)	2.40E-02
109	Z97349	Plasmodium falciparum DNA *** SEQUENCING IN PROGRESS *** from contig 3-06, complete sequence	6.50E-01
110	L06898	Actinomyces viscosus sialidase (nanH) gene, complete cds.	2.20E-01
111	J03818	Rhesus monkey psi-eta-globin gene intergenic region, with Alu repeats.	2.10E-01
112	U66708	Vibrio parahaemolyticus ClpX-like protein (clpX) gene, partial cds, and lon protease (lonS) gene, complete cds	1.90E+00
113	AF078164.2	Homo sapiens Ku70-binding protein (KUB3) mRNA, partial cds	e-174
114	AJ010642	Drosophila melanogaster mRNA for Dof protein, transcript I, partial	1.90E+00
115	AF039096	Diadassia martialis cytochrome oxidase I (CO1) gene, mitochondrial gene encoding mitochondrial protein, partial cds	8.10E-01
116	L44593	Bacteriophage BK5-T ORF'410, 3' end pf cds, 20 ORFs, repressor protein, and Cro repressor protein genes, complete cds, ORF70' gene, 5' end of cds.	2.30E-01
117	U71249	Drosophila virilis cecropin 1 (Cec1), cecropin 2 complete cds and cecropin, pseudogene, exon 1	0.22
118	AL049223.1	Homo sapiens mRNA; cDNA DKFZp564L1916 (from clone DKFZp564L1916)	e-161
119	D13158.2	Bacillus sp. gene for thermostable alkaline protease, complete cds	0.69
120	M36287	S.cerevisiae alpha-aminoacidate reductase (LYS2) gene, complete cds.	6.70E-01
121	AF083457.1	Equus caballus microsatellite COR014 sequence	8.00E-03
122	X66015	T.aestivum mRNA 3 for cathepsin B (2557)	8.00E-03
123	U42767	Drosophila melanogaster leucine-rich repeat/Ig transmembrane protein KEK1 precursor (kek1) mRNA, complete cds	1.90E+00
124	X06670	Yeast NUC1 gene for mitochondrial nuclease	7.10E-02
125	Z49613	S.cerevisiae chromosome X reading frame ORF YJR113c	6.50E-01
126	U00038	Caenorhabditis elegans cosmid T21D11	2.20E-01
127	M60177	Escherichia coli enterobactin (entF) gene, complete cds.	6.50E-01
128	Z84506	H.sapiens flow-sorted chromosome 6 HindIII fragment, SC6pA28B10	2.10E-01
129	J00334	Monkey (rhesus) delta-globin pseudogene; 5' flank and exons 1 & 2.	2.10E-01

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
130	NM_002844.1	Homo sapiens protein tyrosine phosphatase, receptor type, K (PTPRK) mRNA phosphatase mRNA, complete cds	7.00E-03
131	U86751	Human nucleolar fibrillar center protein (ASE-1) mRNA, complete cds	8.00E-03
132	D63735	Distolasterias nipon DNA for 16S rRNA, partial sequence	3.00E-03
133	D13469	M.hypopneumoniae genome, repeated DNA sequence	7.60E-02
134	Z15030	H.sapiens gene for ventricular myosin light chain 2 >gi 340286 gb L01652 HUMVMLC Human ventricular myosin light chain 2 gene, seven exons.	7.60E-02
135	AL035426.2	Human DNA sequence from clone 370N13 on chromosome Xq25-26.3. Contains an exon of the GRIA3 gene for glutamate receptor, ionotropic, AMPA 3. Contains ESTs, complete sequence [Homo sapiens]	2.20E-01
136	U61420	Human myosin VIIa (MYO7A) gene, exons 5, 6, 7, 8, 9, 10, 11, 12, 13 and 14	3.00E-03
137	AF155117.1	Homo sapiens NY-REN-62 antigen mRNA, partial cds	e-142
138	AE001129	Borrelia burgdorferi (section 15 of 70) of the complete genome	8.80E-02
139	AB014528	Homo sapiens mRNA for KIAA0628 protein, complete cds	2.00E-39
140	X85980	H.sapiens serine hydroxymethyltransferase pseudogene	2.40E-02
141	D16474	Human mRNA, Xq terminal portion	9.00E-04
142	NM_005180.1	Homo sapiens murine leukemia viral (bmi-1) oncogene homolog (BMI1) mRNA	8.00E-04
143	U78193	Borrelia burgdorferi tuf-s10 operon: elongation factor (tuf), ribosomal proteins S10 (rpsJ), L3 (rplC), L4 (rplD), L23 (rplW), L2 (rplB), S19 (rpsS), and L22 cds	1.00E-03
144	AF052168	Homo sapiens clone 24762 mRNA sequence	6.60E-01
145	NM_001863.1	Homo sapiens cytochrome c oxidase subunit VIb mRNA, complete sequence	9.00E-05
146	AB010273.1	Homo sapiens pshsp47 gene, complete cds	1.9
147	AL109729.1	Homo sapiens mRNA full length insert cDNA clone EUROIMAGE 123453	1E-81
148	U71187.1	Human cholesteryl ester transfer protein (CETP) gene, partial cds and promoter region	0.023
149	X90761	Homo sapiens hHa2 gene	0.0003
150	AF045742	Xenopus laevis Smad7 mRNA, complete cds	0.028
151	AL049300.1	Homo sapiens mRNA; cDNA DKFZp564P063 (from clone DKFZp564P063)	0.00001

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
152	AP000273.1	Homo sapiens genomic DNA, chromosome 21q22.1, D21S226-AML region, clone:f80G10, complete sequence	0.003
153	NM_001277.1	Homo sapiens choline kinase (CHK) mRNA kinase	0.00003
154	AC001036	Homo sapiens (subclone 2_f7 from P1 H48) DNA sequence	0.002
155	U45432	Human ETV6 gene, promoter region and partial cds	0.008
156	AF045742	Xenopus laevis Smad7 mRNA, complete cds	0.25
157	X60175	D.silvestris clone U28T2 non-LTR retrotransposon DNA (3778 bp)	0.66
158	X93334	H.sapiens mitochondrial DNA, complete genome	0.00001
159	J04838	Human apolipoprotein B (APOB) gene, exons 21, 22 and 23.	0.000001
160	M94631	Hylobates lar (clone LambdaGialphaG1) 3'alpha1Alu1 D, 3'alpha1Alu1 E and 3'alpha1Alu1 F Alu repeat regions.	0.000003
161	Z81524	Caenorhabditis elegans cosmid F32H5, complete sequence [Caenorhabditis elegans]	0.71
162	U42364	Sus scrofa centromere-specific repeat, T32M clone, Mc2 satellite DNA amplified from S0048 primer set.	0.23
163	AJ238233.1	Homo sapiens RPC62 gene for RNA polymerase III subunit, exon 13	1E-35
165	AF030697	Homo sapiens semaphorin L (SEMAL) gene, partial cds	0.00000002
166	Y08639	H.sapiens mRNA for nuclear orphan receptor ROR-beta	0.092
167	X71934	H.sapiens XB gene for tenascin-X, repeat XIII	0.0001
168	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.03
169	M65243	Synthetic mRNA leader sequence UTK.	0.083
170	NM_000999.1	Homo sapiens ribosomal protein L38 (RPL38) mRNA >gi 407422 emb Z26876 HSRPL38 H.sapiens gene for ribosomal protein L38	2E-09
171	X73501	H.sapiens gene for cytokeratin 20	3E-13
172	M17374	X.laevis beta-globin mRNA, 5' UTR.	9.00E-03
173	Z24233	H. sapiens (D12S352) DNA segment containing	2E-11
174	NM_003033.1	Homo sapiens sialyltransferase 4A mRNA >gi 410225 gb L13972 HUMSIAT Homo sapiens beta-galactoside alpha-2,3-sialyltransferase (SIAT4A) mRNA, complete cds	7.00E-13
175	AF039652	Homo sapiens ribonuclease H type II mRNA, complete cds	9E-88
176	Z23435	H. sapiens (D1S414) DNA segment containing (CA) repeat; clone AFM179xg5; single read	0.001
177	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.009
178	AF128535.1	Mus musculus cytoplasmic phosphoprotein PACSIN2 mRNA, complete cds	2E-20
179	U19358	Saccharomyces cerevisiae dnaJ homolog Hlj1p	3.00E-14

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
180	AB011139	Homo sapiens mRNA for KIAA0567 protein, partial cds	4.00E-16
181	AF154851.1	Salvelinus alpinus mitochondrion complete genome	2.20E-01
182	AB028980.1	Homo sapiens mRNA for KIAA1057 protein, partial cds	4.00E-38
183	U39178	Human phosphodiesterase (PDEA) gene, intron 16, 3' end	1E-16
184	U02455	Cloning vector rpDR2, complete sequence.	6.00E-19
185	NM_006048.1	Homo sapiens clone 686 protein (KIAA0684) mRNA >gi 4104975 gb AF043117 AF043117 Homo sapiens ubiquitin-fusion degradation protein 2 (UFD2) mRNA, complete cds	2.00E-64
186	AF002644	Limulus polyphemus cytochrome oxidase II complete sequence, ATP synthase 8 (ATPase 8) gene, complete cds, and ATP synthase 6 (ATPase 6) gene, partial cds, mitochond...	2.40E-02
187	Z58806	H.sapiens CpG island DNA genomic MseI fragment, clone 50f4, forward read cpg50f4.ft1a	6.00E-20
188	U58736	Caenorhabditis elegans cosmid EGAP7.	8.00E-03
189	V01270	R.norvegicus genes for 18S, 5.8S, and 28S ribosomal RNAs	6.00E-21
190	L42098	Homo sapiens (subclone 5_c7 from P1 H22) DNA sequence.	9.00E-14
191	Z63236	H.sapiens CpG island DNA genomic MseI fragment, clone 7f5, forward read cpg7f5.ft1d	2.00E-21
192	AF145957.2	Mus musculus groucho-related gene product	1.00E-57
193	NM_003193.1	Homo sapiens tubulin-specific chaperone e tubulin-folding cofactor E mRNA, complete cds	2.00E-23
194	U65980	Borrelia hermsii 38 kDa lipoprotein Gpd gene, complete cds	2.00E+00
195	U49974	Human mariner2 transposable element, complete consensus sequence	4.00E-28
196	Z47053	Human microsatellite DNA sequence	5E-29
197	X80424	M.musculus tex23 mRNA (5'region)	1.00E-27
198	U75467	Drosophila melanogaster Rga and Atu genes, complete cds	4.00E-28
199	U43077	Human CDC37 homolog mRNA, complete cds	1.00E-28
200	NM_000436.1	Homo sapiens 3-oxoacid CoA transferase mRNA >gi 1519051 gb U62961 HSU62961 Human succinyl CoA:3-oxoacid CoA transferase precursor (OXCT) mRNA, complete cds	2.00E-29
201	NM_003979.1	Homo sapiens retinoic acid induced 3 (RAI3) mRNA >gi 4063889 gb AF095448 AF095448 Homo sapiens putative G protein-coupled receptor (RAIG1) mRNA, complete cds	e-158
202	Z22466	H.sapiens DNA sequence	5E-30



**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
203	X15880	Human mRNA for collagen VI alpha-1 C-terminal globular domain	7.00E-33
204	U47322	Cloning vector DNA, complete sequence.	8E-34
205	Z55306	H.sapiens CpG island DNA genomic MseI fragment, clone 32a6, forward read cpg32a6.ft1a	2E-20
206	AC005190	Homo sapiens PAC clone DJ1152D16 from Xq23, complete sequence [Homo sapiens]	1.00E-26
207	Z56833	H.sapiens CpG island DNA genomic MseI fragment, clone 14e3, reverse read cpg14e3.rt1b	7.00E-11
208	D38101	Rat rCACN4A mRNA for L-type voltage-dependent calcium channel alpha 1 subunit, complete cds	2.40E-02
209	Z56833	H.sapiens CpG island DNA genomic MseI fragment, clone 14e3, reverse read cpg14e3.rt1b	6.00E-11
212	NM_002004.1	Homo sapiens farnesyl diphosphate synthase (dimethylallyltransferase, geranyltransferase) for KIAA0003 gene, complete cds	2.00E-43
213	AB023234.1	Homo sapiens mRNA for KIAA1017 protein, complete cds	e-172
214	NM_003492.1	Homo sapiens ITBA1 gene (ITBA1) mRNA protein	1.00E-49
215	X52994	Sheep mRNA for CD3 gamma subunit (partial)	5.00E-08
216	AF059650	Homo sapiens histone deacetylase 3 (HDAC3) gene, complete cds	6.80E-01
217	U49046	Mus musculus zinc finger protein (Zfp64) mRNA, complete cds	3.00E-55
218	NM_003488.1	Homo sapiens A kinase anchor protein, 149kD mRNA for kinase A anchor protein	3.00E-21
219	J03764	Human, plasminogen activator inhibitor-1 gene, exons 2 to 9.	3.00E-26
220	Y16675	Homo sapiens mRNA for aflatoxin B1-aldehyde reductase	8.00E-03
221	AF085715	Mus musculus homeobox protein SPX1 mRNA, complete cds	2.10E-01
222	X76968	Loligo forbesi mRNA for phosphatidylinositol-specific phospholipase C	1.9
223	X55741	H.sapiens FKBP cDNA	2.00E-65
224	X85060	B.taurus cosmid-derived microsatellite DNA	3.00E-76
225	AJ001119	Bos taurus mRNA for Rab5 GDP/GTP exchange factor, Rabex5	3E-79
226	D63850	Mus musculus mRNA for hepatoma-derived growth factor, complete cds, strain:BALB/c	e-102
227	AB018344.1	Homo sapiens mRNA for KIAA0801 protein, complete cds	e-169
228	X81058	M.musculus tex261 mRNA	e-112

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
229	AF041853	Homo sapiens kinesin family member protein KIF3A mRNA, complete cds	e-162
234	AB020395	Taenia taeniaeformis mitochondrial DNA for large subunit ribosomal RNA, partial sequence	1.90E+00
235	AF120325.1	Cricetulus griseus class I beta tubulin gene, complete cds	1.80E+00
237	AF084259	Mus musculus bromodomain-containing protein BP75 mRNA, complete cds	0.64
239	M77820	Xenopus laevis fibronectin mRNA, complete cds.	2
241	AB007930	Homo sapiens mRNA for KIAA0461 peroteine, partial cds	e-178
242	D87463	Human mRNA for KIAA0273 gene, complete cds	2
244	AF094519	Mus musculus diaphanous-related formin (Dia2) mRNA, complete cds	e-143
246	Z69708	Human DNA sequence from cosmid L241B9, Huntington's Disease Region, chromosome 4p16.3 contains polymorphic VNTR pYNZ32	2
247	AF156102.1	Homo sapiens ELL complex EAP30 subunit mRNA, complete cds	e-169
248	L36592	Homo sapiens kidney epithelial sodium channel gamma subunit (gamma hENaC) mRNA, complete cds.	0.63
250	AF039945	Homo sapiens synaptojanin 2B mRNA, partial cds	2.1
252	U29487	Caenorhabditis elegans cosmid C09C7	0.71
253	NM_003794.1	Homo sapiens sorting nexin 4 (SNX4) mRNA nexin 4 mRNA, complete cds	e-151
255	AE001267	Treponema pallidum section 83 of 87 of the complete genome	6.70E-01
256	NM_005686.1	Homo sapiens SRY (sex determining region Y)-box 13 (SOX13) mRNA >gi 4323170 gb AF098915 AF098915 Homo sapiens type 1 diabetes autoantigen ICA12 mRNA, complete cds	0.23
257	Z49373	S.cerevisiae chromosome X reading frame ORF YJL098w	2
258	AF125392.1	Homo sapiens insulin induced protein 2 mRNA, complete cds	8.00E-96
260	X07618	Human mRNA for cytochrome P450 db1 variant a	6.90E-01
261	AB022161.1	Mus musculus Cctq gene for chaperonin containing TCP-1 theta subunit, complete cds	0.7
262	AF001794	Mus musculus Treacher Collins Syndrome protein	0.69
263	AF119362.1	Mus musculus strain 129/SvJ mast cell protease 8 (Mcpt8) gene, complete cds	0.22
264	AE001395	Plasmodium falciparum chromosome 2, section 32 of 73 of the complete sequence	6.80E-01
265	U19775	Human MAP kinase Mxi2 (MXI2) mRNA, complete cds	2.10E+00

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
266	AJ131389	Homo sapiens mRNA for PEX3 protein, partial	e-171
267	M25779	S.cerevisiae SEC59 gene, complete cds.	1.90E+00
268	AF009953	Glycine max 35 kDa seed maturation protein	0.66
269	Z35284	H.sapiens mRNA for MDR3 P-glycoprotein	2.40E-02
270	AF050052	Pleurocera prasinatum strain 12B-1 16S ribosomal RNA gene, mitochondrial gene for mitochondrial RNA, partial sequence	6.60E-01
271	AF043494	Pinus strobus microsatellite RPS3 repeat region	6.60E-01
272	NM_001388.1	Homo sapiens developmentally regulated GTP-binding protein 2 (DRG2) mRNA GTP-binding protein	0.65
273	NM_000242.1	Homo sapiens mannose-binding lectin, soluble mannose-binding protein C	6.90E-01
274	S82740	NPM/ALK=fusion gene {translocation breakpoint}	7.10E-01
275	AB006621	Homo sapiens mRNA for KIAA0283 gene, partial cds	1.90E+00
276	AB023162.1	Homo sapiens mRNA for KIAA0945 protein, complete cds	e-169
277	AF124490.1	Homo sapiens ARF GTPase-activating protein GIT1 mRNA, complete cds	e-173
278	L29454	Mouse fibrillin (Fbn-1) mRNA, complete cds.	0.64
279	AB018264.1	Homo sapiens mRNA for KIAA0721 protein, partial cds	e-148
280	AF046000	Mus musculus rod cGMP phosphodiesterase delta subunit (Pde6d) gene, complete cds	0.52
281	X86791	S.scrofa beta-globin gene	0.37
282	AL050368.1	Homo sapiens mRNA; cDNA DKFZp566A1124	2.1
283	AF174426.1	Acholeplasma laidlawii DNA topoisomerase IV ParE subunit (parE) and DNA topoisomerase IV ParC subunit (parC) genes, partial cds	2.1
284	AJ009770	Homo sapiens mRNA for putative transcription factor, partial	e-165
285	U89992	Mus musculus lymphocyte-specific adaptor protein Lnk (Lnk) mRNA, complete cds	0.23
287	AF132479	Mus musculus Ese2L protein mRNA, complete cds	0.7
288	X76753.2	Homo sapiens HG 5-HTT gene for serotonin transporter, exon 1	2.1
289	D64033	Oryzias latipes DNA for transferrin, complete cds	0.23
290	D29985	Bacillus subtilis wapA and orf genes for wall-associated protein and hypothetical proteins	0.68
291	AL049442.1	Homo sapiens mRNA; cDNA DKFZp586N1720 (from clone DKFZp586N1720)	e-166

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
292	S64907	cgs2+=cyclic AMP dependent protein kinase regulatory subunit homolog [Schizosaccharomyces pombe=fission yeast, Genomic, 3596 nt]	0.68
293	AF027202	Bos taurus rod outer segment guanylate cyclase precursor (ROS-GC1) gene, exons 9 through 11	2
294	AB011540	Homo sapiens mRNA for MEGF7, partial cds	0.076
295	AL096842.1	Homo sapiens mRNA; cDNA DKFZp586D1519 (from clone DKFZp586D1519)	e-177
296	D78503.1	Mus musculus seizure-related mRNA, partial sequence	0.68
297	AF079557	Mus musculus poly(ADP-ribose) glycohydrolase	2
298	Z66316	H.sapiens CpG island DNA genomic MseI fragment, clone 8a6, forward read cpg8a6.ft1f	0.22
299	U86453	Human phosphatidylinositol 3-kinase catalytic subunit p110delta mRNA, complete cds	2.1
300	AJ000467.1	Crocidura russula partial mitochondrial cytb gene >gi 3319900 emb AJ000468.1 CRAJ468 Crocidura russula partial mitochondrial cytb gene	0.22
301	X63721	S.cerevisiae HEM12 gene for uroporphyrinogen decarboxylase	0.67
302	AJ005390.1	Homo sapiens SCNN1B gene, exons 9 and 10	0.23
303	X06150	Rat mRNA for glycine methyltransferase (EC 2.1.1.20)	0.22
304	X63771.1	Soybean Mosaic Virus gene for coat protein	2
305	AF113615.1	Homo sapiens FH1/FH2 domain-containing protein FHOS (FHOS) mRNA, complete cds	e-176
306	AF052193	Gallus gallus translation repressor mRNA, partial cds	0.66
307	D13903	Mouse mRNA for MPTPdelta (type A)	0.22
308	M77144	Human type II 3-beta hydroxysteroid dehydrogenase/ 5-delta - 4-delta isomerase gene, complete cds.	0.22
309	AJ236656	Homo sapiens chromosome 22 CpG island DNA, genomic MseI fragment, clone 22CGIB49B8 , complete read	0.66
310	M84732	Plasmodium yoelii sporozoite surface protein 2 gene	0.22
311	X83433	O.sativa mRNA for lipid transfer protein, b21	0.66
312	AP000145.1	Homo sapiens genomic DNA, chromosome 21q21.2, LL56-APP region, clone B2291C14-R44F3, segment 10/10, complete sequence	0.0000004
313	AB025570.1	Equus caballus CgA mRNA for chromogranin A, complete cds	0.22
314	AF006482	Mus musculus nucleoside triphosphatase	0.69
315	AF141308.1	Homo sapiens polyamine modulated factor-1	0.65

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
316	AF092945	Charybdis feriatus molt-inhibiting hormone	0.22
317	D90773	E.coli genomic DNA, Kohara clone #262(30.3-30.5 min.)	1.9
318	D26077	Mouse mRNA for KIF3B protein, complete cds	0.21
319	U68036	Streptomyces coelicolor bldKA, bldKB, bldKC, and bldkD genes, complete cds, and bldkE gene, partial cds	0.64
321	X75563	S.oleracea mRNA (omp24) for chloroplast outer envelope 24 kD protein	0.68
322	AB006628	Homo sapiens mRNA for KIAA0290 gene, partial cds	0.21
323	AJ238878.1	Haloferax volcanii ORF1, strain WR340	0.21
324	U39696	Mycoplasma genitalium section 18 of 51 of the complete genome	0.21
326	AL031590	Human DNA sequence from clone 232D4 on chromosome 22q13.1 Contains GSS, complete sequence [Homo sapiens]	0.67
327	AF103731.1	Homo sapiens putative glycolipid transfer protein mRNA, complete cds	e-168
328	U88984	Mus musculus NIK mRNA, complete cds	0.22
329	AJ006031	Mus musculus IHABP gene, promoter	2E-40
330	AL049953.1	Homo sapiens mRNA; cDNA DKFZp564P0622	6E-52
331	L49144	Homo sapiens neuroendocrine-specific protein	0.81
332	U25810	Bos taurus lysozyme (LZ) gene, complete cds	0.000004
333	AF092681	Exema neglecta haplotype 188 cytochrome oxidase I (COI) gene, mitochondrial gene encoding mitochondrial protein, partial cds	0.77
334	AE000966	Archaeoglobus fulgidus section 141 of 172 of the complete genome	2.1
335	AF091234	Mus musculus putative transcription factor mRNA, complete cds	4E-90
336	M25702	Human thyroid peroxidase (TPO) gene, exon 2.	0.078
337	Z70029	B.vulgaris mitochondrial DNA, RAPD fragment	0.075
338	AF072432	Dictyostelium discoideum gp63 homolog mRNA, complete cds	0.69
339	M13241	Human N-myc gene, exons 2 and 3.	0.074
340	X07703	Chironomus tentans Balbiani ring gene BR6 3'-end	0.076
341	X57564	A.rusticana mRNA for neutral peroxidase	0.077
342	Z74084	S.cerevisiae chromosome IV reading frame ORF YDL036c	2
343	U30248	Caenorhabditis elegans transcription factor E12/47 homolog gene, complete cds	2.1
344	Y09396	C.annuum mRNA for CDC48p-like protein	2
345	Z92835	Caenorhabditis elegans cosmid H19N07, complete sequence [Caenorhabditis elegans]	0.68

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
346	M92844	Homo sapiens zinc finger transcriptional regulator (GOS24) gene, complete cds	2
347	X54111	Treponema pallidum GroEL gene and gene encoding putative enol-pyruvyltransferase	0.22
348	Z71419	S.cerevisiae chromosome XIV reading frame ORF YNL143c	0.64
349	AL034486	S.pombe chromosome I cosmid c2H10	1.9
350	NM_000127.1	Homo sapiens exostoses (multiple) 1 (EXT1) mRNA	2
351	U61997	Zea mays B chromosome centromere repeat K11 sequence	0.074
352	AB018255.1	Homo sapiens mRNA for KIAA0712 protein, complete cds	7E-43
353	S60289	LeB4=legumin {5' region} [Vicia faba, Genomic, 1222 nt]	0.072
354	AE001391	Plasmodium falciparum chromosome 2, section 28 of 73 of the complete sequence	0.24
357	U67478	Methanococcus jannaschii section 20 of 150 of the complete genome	0.068
358	AE001146	Borrelia burgdorferi (section 32 of 70) of the complete genome	1.9
359	U46542	Streptococcus crista HmpA gene, partial cds, putative adhesin/ABC transport system protein (scbA) gene, complete cds	0.073
360	Z36067	S.cerevisiae chromosome II reading frame ORF YBR198c	1.3
361	U78684	Teucrium parvifolium NADH dehydrogenase (ndhF) gene, chloroplast gene encoding chloroplast protein, partial cds	0.29
362	AF037332	Homo sapiens Eph-like receptor tyrosine kinase hEphB1b (EphB1) mRNA, complete cds	0.26
363	U54469	Drosophila melanogaster eukaryotic initiation factors 4E-I and 4E-II (eIF4E) gene, complete cds.	0.24
364	U20611	Mus musculus thioredoxin-dependent peroxide reductase (tpx) mRNA, complete cds.	0.027
365	L34542	Rattus norvegicus non-receptor protein kinase	0.7
366	Y14993	Schizosaccharomyces pombe gut2 gene	0.23
367	AL008983	Plasmodium falciparum DNA *** SEQUENCING IN PROGRESS *** from contig 3-54, complete sequence	0.025
368	AL080129.1	Homo sapiens mRNA; cDNA DKFZp434D193 (from clone DKFZp434D193)	e-100
369	AF100304	Caenorhabditis elegans cosmid W07B3	0.65
370	AF039527	Bacillus stearothermophilus limonene hydroxylase (pOT435) gene, complete cds	0.22
371	AP000258.1	Homo sapiens genomic DNA, chromosome 21q22.1, D21S226-AML region, clone:Q89A6, complete sequence	0.00001

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
372	AF082519	Entamoeba histolytica 70 kDa heat shock protein Hsp70-Bip precursor (BiP) gene, complete cds	0.0009
373	M38224	T.brucei procyclic acidic repetitive protein	1.9
374	Z70720	S.pombe chromosome I cosmid c1B9	0.65
375	AF069532	Homo sapiens CDP-diacylglycerol synthase 2	5E-20
376	X97570	Z.mays dek34 gene	0.22
377	NM_004652.1	Homo sapiens ubiquitin specific protease 9, X chromosome (Drosophila fat facets related) (USP9X) mRNA ubiquitin hydrolase	0.023
378	AJ223578	Branchiostoma lanceolatum mRNA for intermediate filament protein C2	0.024
379	D63523.1	Dictyostelium discoideum mitochondrial genes for ribosomal proteins, complete and partial cds	0.22
380	L35528	Mus musculus manganese superoxide dismutase	0.074
381	NM_004267.1	Homo sapiens carbohydrate (chondroitin 6/keratan) sulfotransferase 2 (CHST2) mRNA mRNA for N-acetylglucosamine-6-O-sulfotransferase mRNA for long form of N-acetylglucosamine-6-O-sulfotransferase (GlcNAc6ST), complete cds	0.003
382	Z81507	Caenorhabditis elegans cosmid F18A11, complete sequence [Caenorhabditis elegans]	1.9
383	AF072506.2	Homo sapiens endogenous retrovirus W envelope protein precursor mRNA, complete cds	0.75
384	U39730	Mycoplasma genitalium cdsA, frr, hsdS, smbA, tsf genes from bases 539564 to 546816 (section 52 of 56) of the complete genome	0.009
385	L20296	Saccharomyces cerevisiae (chromosome II) ARO4-homologue (YBR1701), YBR1702, YBR1703, 30S ribosomal protein-homologue (YBR1704) and pseudoprotease-homologue	2
386	D50500	Mouse mRNA for Rab 11, partial sequence	0.22
387	X52263	C.tentans balbiani ring 3 (BR3) gene	2
388	M68998	Human alpha-1 type XIII collagen (COL13A1) gene, exon 1.	0.008
389	L40608	Plasmodium falciparum (strain Dd2) variant-specific surface protein (var-1) gene, complete cds.	2
390	D12688	Mouse P-cadherin gene, exon 1 and 2	2
391	AE001150	Borrelia burgdorferi (section 36 of 70) of the complete genome	0.008
392	X80852	M.musculus gene for liver type phosphofructokinase	0.073
393	AF115849.1	Trichomonas vaginalis pre-mRNA processing 8 protein homolog PRP8 (PRP8) gene, complete cds	2

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
394	L31848	Homo sapiens serine/threonine kinase receptor 2	0.069
395	AJ003222	Borrelia burgdorferi flgK, flbF, thdF, gidA, gidB, moxR, orf1, orf2, orf3, orf4 and orf5 genes	0.006
396	AB028958.1	Homo sapiens mRNA for KIAA1035 protein, partial cds	0.055
397	AF155110.1	Homo sapiens NY-REN-45 antigen mRNA, complete cds	0.07
398	M24842	Human keratin 18 (K18) gene, complete cds.	e-142
399	AL050074.1	Homo sapiens mRNA; cDNA DKFZp566F1946	e-171
401	D13469	M.hypopneumoniae genome, repeated DNA sequence	0.003
402	U67510	Methanococcus jannaschii section 52 of 150 of the complete genome	0.074
403	AB029343.1	Homo sapiens HCR (a-helix coiled-coil rod homologue) gene, complete cds	0.21
404	L43391	Homo sapiens (subclone 5_g12 from P1 H16) DNA sequence.	0.7
405	AF016864.1	Orpinomyces sp. PC-2 beta-glucosidase (bgl1) mRNA, complete cds	0.22
406	L31848	Homo sapiens serine/threonine kinase receptor 2	0.072
407	X65521	K.lactis centromere 2 (KICEN2) DNA	0.024
408	U56221	HIV-1 clone 13Pb9-4 from Seattle, envelope glycoprotein, V3-V5 region (env) gene, partial cds	0.22
409	AF157816.1	Homo sapiens cAMP specific phosphodiesterase products, complete cds	2E-11
410	AF131748	Homo sapiens clone 25191 GTP-specific succinyl-CoA synthetase beta subunit (SCS) mRNA sequence, partial cds	0.23
411	AF034783	Synthetic helper virus genomic sequence fragment	2
412	AF035606	Homo sapiens calcium binding protein (ALG-2) mRNA, complete cds	0.000004
413	L07944	Plasmodium falciparum secreted polymorphic antigen gene, complete cds	0.001
414	AE001418	Plasmodium falciparum chromosome 2, section 55 of 73 of the complete sequence	0.026
415	Z68886	Human DNA sequence from cosmid L21F12, Huntington's Disease Region, chromosome 4p16.3	7E-12
416	X82192	H.sapiens EST mRNA (G5)	0.23
417	NM_004998.1	Homo sapiens myosin IC (MYO1C) mRNA complete cds.	0.0001
418	U55042	Bos taurus myosin X, complete cds	0.2



**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
419	AF026069.1	Homo sapiens phosphomevalonate kinase	0.66
420	AL080128.1	Homo sapiens mRNA; cDNA DKFZp434C153 (from clone DKFZp434C153)	0.62
421	S75476	PGK1=phosphoglycerate kinase 1 {3' nuclease-sensitive region} [human, Genomic, 3571 nt]	0.00003
422	M57682	Rat brain calcium channel alpha-1 subunit mRNA, complete cds.	0.0001
423	AB023053.1	Homo sapiens genomic DNA, chromosome 6p21.3, HLA class I region, clone:53L9, complete sequence	0.074
424	U74651	Human DNA polymerase gamma (polg) gene, promoter region and partial cds	7E-11
426	X86336	H.sapiens C7 gene, exon 9	0.026
427	AB000931.2	Homo sapiens FUT2 gene, intron 1, complete sequence	0.0003
428	U20365	Mus musculus smooth muscle gamma-actin gene, complete cds	0.0003
429	AF136745.1	Homo sapiens diacylglycerol kinase epsilon gene, promoter and partial cds	0.0000001
430	X04249	Human gene for small cytoplasmic 7SL RNA (7L30.1) pseudogene	0.000001
431	AB029016.1	Homo sapiens mRNA for KIAA1093 protein, partial cds	0.00000005
432	AE001421	Plasmodium falciparum chromosome 2, section 58 of 73 of the complete sequence	0.001
433	AB023189.1	Homo sapiens mRNA for KIAA0972 protein, complete cds	0.003
434	U68061	Human MUC2 gene, promoter region	0.000001
435	NM_005971.1	Homo sapiens phospholemmann-like, expressed in breast tumors, 8kD (PLML) mRNA protein	5E-09
436	AC001050	Homo sapiens (subclone 3_e9 from P1 H55) DNA sequence	5E-09
437	AF151843.1	Homo sapiens CGI-85 protein mRNA, complete cds	1E-35
438	U26447	Human natural resistance-associated macrophage protein (NRAMP1) gene, 3' region	6E-10
439	Z95309	Caenorhabditis elegans cosmid H36L18, complete sequence [Caenorhabditis elegans]	2
440	AF144622.1	Homo sapiens beta-catenin gene, intron 2 and partial cds	2
441	J04990	Human cathepsin G gene, complete cds.	0.0000001
442	U22657	Mus musculus genomic locus related to cellular morphology.	0.076

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
443	AP000262.1	Homo sapiens genomic DNA, chromosome 21q22.1, D21S226-AML region, clone:S680, complete sequence	2E-12
444	AF115549.2	Homo sapiens Wiskott-Aldrich Syndrome protein flanking region	6E-21
445	M55409	Homo sapiens pancreatic tumor-related protein mRNA, partial cds	8E-13
446	NM_006530.1	Homo sapiens Glioma-amplified sequence-41 GAS41 protein mRNA, complete cds	e-154
447	U30261	Schistosoma mansoni G protein beta subunit-like protein trans-spliced mRNA, complete cds	3E-14
448	AF132966.1	Homo sapiens CGI-32 protein mRNA, complete cds	e-169
449	M15205	Human thymidine kinase gene, complete cds, with clustered Alu repeats in the introns.	1E-14
450	X92565	C.elegans mRNA for LIN-2B protein	0.0000001
451	NM_006466.1	Homo sapiens polymerase (RNA) III (DNA directed) (39kD) (RPC39) mRNA subunit (RPC39) mRNA, complete cds	3E-15
452	AF086460	Homo sapiens full length insert cDNA clone ZD85A02	e-117
453	L35664	Homo sapiens (subclone H8 8_f5 from P1 35 H5 C8) DNA sequence.	2E-10
454	X69951	H.sapiens gene for casein kinase II alpha subunit	2E-20
455	AB007930	Homo sapiens mRNA for KIAA0461 peroteine, partial cds	e-177
456	L81840	Homo sapiens (subclone 1_f8 from P1 H43) DNA sequence	1E-27
457	X94354	H.sapiens DNA for Cone cGMP-PDE gene	4E-17
458	AB024291.1	Zea mays ZmRR2 mRNA, complete cds	0.025
459	Y16790	Homo sapiens hHa4 gene, complete CDS	0.66
460	U67209	Human clone HS2.10 Alu-Ya5 sequence	2E-19
461	M30951	Gorilla 28S ribosomal RNA gene fragment.	5E-20
462	AF029062	Homo sapiens DEAD-box protein (BAT1) gene, partial cds	1E-18
463	AB014601	Homo sapiens mRNA for KIAA0701 protein, partial cds	1E-14
464	M30950	Chimpanzee 28S ribosomal RNA gene fragment.	6E-21
465	AB005619	Gallus gallus mRNA for chromobox protein	3E-26
466	AF070657	Homo sapiens glutathione S-transferase subunit 13 homolog mRNA, complete cds	2E-54
467	M58775	Polaribacter glomeratus 16S ribosomal RNA	2.1
468	AJ000992.1	Dictyostelium discoideum gdt1 gene	0.67
469	AB014589	Homo sapiens mRNA for KIAA0689 protein, partial cds	e-158
470	Z63830	H.sapiens CpG island DNA genomic MseI fragment, clone 90h2, reverse read cpg90h2.rt1a	3E-26

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
471	NM_002273.1	Homo sapiens keratin 8 (KRT8) mRNA keratin 8	e-120
472	AF116910.1	Homo sapiens clone HAW100 putative ribonuclease III mRNA, complete cds	e-173
473	AF131739	Homo sapiens clone 25189 mRNA sequence, complete cds	e-124
474	AF100615.1	Homo sapiens chromosome 15 MRG15 protein	7E-74
475	AB019490.1	Homo sapiens IDN4-GGTR7 mRNA, partial cds	e-156
476	L20941	Human ferritin heavy chain mRNA, complete cds.	1E-27
477	AF088022	Homo sapiens full length insert cDNA clone ZC18H06	5E-30
478	L06845	Human cysteinyl-tRNA synthetase mRNA, partial cds.	1E-39
479	AB014542	Homo sapiens mRNA for KIAA0642 protein, partial cds	2E-54
480	L77890	Homo sapiens excision repair protein ERCC4 mRNA, complete cds, clone cer4-40	2E-30
481	L32838	Mouse germline interleukin 1 receptor antagonist	0.076
482	NM_004537.1	Homo sapiens nucleosome assembly protein 1-like 1 (NAP1L1) mRNA >gi 189066 gb M86667 HUMNAP H.sapiens NAP (nucleosome assembly protein) mRNA, complete cds	e-123
483	U85258	Human estrogen related receptor alpha (ESTRA) pseudogene	8E-34
484	U79656	Human Treacher Collins syndrome (TCOF1) gene, exon 21	8E-34
485	AF067864.1	Homo sapiens transferrin receptor 2 alpha	4E-91
486	X03100	Human HLA-SB(DP) alpha gene	1E-16
487	AF013277	Bombyx mori topoisomerase II (TOPOII) mRNA, complete cds	0.23
488	U46068	Mus musculus von Ebner minor salivary gland protein mRNA, complete cds.	1E-35
489	U67563	Methanococcus jannaschii section 105 of 150 of the complete genome	1E-35
490	AB016492.1	Homo sapiens hJTB gene, complete cds	e-118
491	X98176	H.sapiens mRNA for MACH-beta-1 protein	1E-36
492	AF049613	Homo sapiens huntingtin interacting protein HYPK mRNA, partial cds	7E-22
493	AF039690.1	Homo sapiens antigen NY-CO-8 (NY-CO-8) mRNA, partial cds	1E-37
494	NM_001003.1	Homo sapiens ribosomal protein, large, P1 ribosomal phosphoprotein P1 mRNA, complete cds.	4E-38

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
495	U34305	Shigella sonnei form I operon ORF protein genes, complete cds, insertion sequence IS630 protein gene, complete cds.	0.074
496	U61538	Human calcium-binding protein chp mRNA, complete cds	4E-38
497	AJ243512.1	Homo sapiens mRNA for Barx2 protein (Barx2 gene)	1E-46
498	AF077043.1	Homo sapiens 60S ribosomal protein L36 mRNA, complete cds	4E-59
499	Y14223	Homo sapiens BPI gene, exon 9	0.00001
500	X07425	Human gene for U 6 RNA	1E-35
501	U43508	Mus musculus RORgamma orphan nuclear receptor mRNA, complete cds	0.23
502	Z92541	Human DNA sequence from PAC 179I15, BRCA2 gene region chromosome 13q12-13 contains lactase-phlorizin hydrolase (LCT)	0.078
503	X57435	H.sapiens mRNA for transcription factor AP-4	0.26
504	X70154	Z.mays mRNA for b-32 protein, putative regulatory factor of zein expression (clone b-32.152)	2.1
505	AF069737	Xenopus laevis notchless (nle) mRNA, complete cds	2E-94
506	D63850	Mus musculus mRNA for hepatoma-derived growth factor, complete cds, strain:BALB/c	5E-50
507	NM_006295.1	Homo sapiens valyl-tRNA synthetase 1 (VARS1) mRNA	2E-50
508	Y16355	Homo sapiens mRNA for protein encoded by cxorf5 (71-7A) gene, alternatively spliced form	e-157
509	U67317	Cuphea wrightii beta-ketoacyl-ACP synthase II	0.68
510	NM_006571.1	Homo sapiens novel RGD-containing protein mRNA, complete cds	1E-56
511	NM_003574.1	Homo sapiens VAMP (vesicle-associated membrane protein)-associated protein A (33kD) (VAPA) mRNA, and translated products VAMP-associated protein of 33 kDa (VAP-33) mRNA, complete cds	e-129
512	NM_003431.1	Homo sapiens zinc finger protein 124 (HZF-16) HZF-16=Kruppel-related zinc finger gene homolog HEP-G2, mRNA, 2080 nt]	2E-60
513	J03798	Human autoantigen small nuclear ribonucleoprotein Sm-D mRNA, complete cds.	2E-72
514	AL049670.1	Human gene from PAC 69E11, chromosome 1	e-174
515	AB014603	Homo sapiens mRNA for KIAA0703 protein, complete cds	e-167
516	NM_000977.1	Homo sapiens ribosomal protein L13 (RPL13) mRNA >gi 29382 emb X64707 HSBBC1 H.sapiens BBC1 mRNA	2E-63

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
517	Z55204	H.sapiens CpG island DNA genomic MseI fragment, clone 26c2, reverse read cpg26c2.rt1a	1E-28
518	AC002181	Homo sapiens (subclone 2_a12 from BAC H111) DNA sequence	0.001
519	NM_006371.1	Homo sapiens cartilage-associated protein sapiens mRNA for cartilage-associated protein (CASP)	e-171
520	AF102507.1	Homo sapiens fizzy-related protein mRNA, partial cds	e-153
521	U91561	Rattus norvegicus pyridoxine 5'-phosphate oxidase mRNA, complete cds	e-100
522	X56974	M.musculus mRNA for external transcribed spacer	e-163
523	AF060539	Mus musculus channel interacting PDZ domain protein mRNA, complete cds	e-138
524	AF071592	Homo sapiens kinesin superfamily motor KIF4 mRNA, complete cds	0
525	X68199	R.norvegicus MYR1 mRNA for myosin I heavy chain	e-128
526	NM_006693.1	Homo sapiens no arches-like (zebrafish) zinc finger protein (NAR) mRNA >gi 4098571 gb U79569 HSU79569 Human no arches (nar) mRNA, complete cds	e-160
527	Z22818	Canis familiaris mRNA for Rab12 protein	e-159
529	AF077330	Mus musculus NEDD8-conjugating enzyme (Uba3) mRNA, complete cds	0.62
532	AF118268.1	Coprinus cinereus laccase 2 precursor (lcc2) gene, complete cds	2
533	AF118268.1	Coprinus cinereus laccase 2 precursor (lcc2) gene, complete cds	1.9
534	U33265	Coccidioides immitis complement fixation/chitinase antigen mRNA, complete cds	1.8
538	AF079867.1	Acomys cahirinus clone pAcah3 satellite sequence	1.8
539	NM_001324.1	Homo sapiens cleavage stimulation factor, 3' pre-RNA, subunit 1, 50kD (CSTF1) mRNA pZ50-19) cleavage stimulation factor 50kDa subunit, complete cds.	0.69
540	AB012265	Mus musculus mRNA for wizL, complete cds	0.64
541	Y18504.1	Homo sapiens X5L gene	e-151
542	AF034265	Gracilaria chilensis 18S ribosomal RNA gene, partial sequence; internal transcribed spacer 1, 5.8S ribosomal RNA gene and internal transcribed spacer 2, complete sequence; and 25S ribosomal RNA gene, partial sequence	0.62
543	U16163	Mus musculus prolyl 4-hydroxylase alpha(II)-subunit mRNA, complete cds	0.62

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
544	U53004	Human GT335 gene, exons 1, 2, 3, and 4	0.61
545	Y13870.1	Homo sapiens mRNA containing (CAG) <sub>6</sub> repeat, clone CZ-CAG 12	0.22
546	AF127950.1	Homo sapiens DNA polymerase epsilon catalytic subunit protein (POLE1) gene, exons 17, 18 and 19	0.21
547	AF071538	Homo sapiens Ets transcription factor PDEF	e-166
548	D63876	Human mRNA for KIAA0154 gene, partial cds	0.61
549	AE001326	Chlamydia trachomatis section 53 of 87 of the complete genome	2.3
550	Z58704	H.sapiens CpG island DNA genomic MseI fragment, clone 49b2, reverse read cpg49b2.rt1b	2.3
551	X78576	R.oryzae fumR gene	0.22
552	AB014740.1	Oryza sativa gypsy-type retrotransposon RIRE8A DNA, internal region, complete sequence	0.64
553	X78562	O.limosus hypoglycemic hormone mRNA CHAA,2409bp	0.21
554	X99719	S.enterica hsdM, hsdS & hsdR genes	1.9
555	U58513	Mus musculus Rho-associated, coiled-coil forming protein kinase p160 ROCK-2 mRNA, complete cds	1.9
556	Z83002	B.pagrosomi partial 28S rRNA gene	0.66
557	AL080223.1	Homo sapiens mRNA; cDNA DKFZp566H2446	e-150
558	AL080066.1	Homo sapiens mRNA; cDNA DKFZp564J142 (from clone DKFZp564J142)	0.00003
559	AF020424	Nicotiana tabacum glutamate decarboxylase isozyme 2 (NtGAD2) mRNA, complete cds	1.8
560	U32768	Haemophilus influenzae Rd section 83 of 163 of the complete genome	0.21
561	M10316	Plasmid pJD1 from Neisseria gonorrhoeae DNA, complete genome.	2
562	AB004272.1	Bos taurus mRNA for placenta growth factor precursor, complete cds	1.9
563	X05427	Drosophila ultrabithorax (Ubx) gene promoter region	1.9
564	M18729	S.pneumoniae mismatch repair protein (hexA) gene, complete cds.	0.21
565	M87060	Rattus rattus cardiac AE3 gene, exons 1-23.	0.086
566	M36662	Chicken alpha-1 collagen type III gene, 3' end.	0.083
567	AF135450.1	Sus scrofa SMCY (SMCY) gene, partial cds	0.081
568	Z34293	A.thaliana (CDNA4) myosin heavy chain mRNA	2.2
569	U83880	Rattus norvegicus glycerol-3-phosphate dehydrate dehydrogenase (mtGPDH) mRNA, 3'UTR	1E-59

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
570	AF133913.1	Mus musculus ARL-6 interacting protein-6	4E-79
571	AF077543.1	Caenorhabditis elegans cosmid H07I21	1.9
572	X77829	A.niger (N400) gsdA gene	0.07
573	X74765	H.sapiens CSK gene for protein tyrosine kinase	0.069
574	X63510	M.musculus CAML1 gene (exons 5-9)	0.62
575	U27319	Rattus norvegicus type I hexokinase (HKI) gene, promoter region and partial cds	0.61
576	L23863	Rat Skn1i mRNA.	0.068
577	Z26284.1	H.sapiens isoform 1 gene for L-type calcium channel, exon 47 and 48	0.069
578	S66283	Spnb-1=beta-spectrin [mice, reticulocyte, mRNA, 8126 nt]	0.069
579	M36305	Galago crassicaudatus gamma globin gene, complete cds.	0.07
580	AB018337.1	Homo sapiens mRNA for KIAA0794 protein, partial cds	0.22
581	Z60182	H.sapiens CpG island DNA genomic MseI fragment, clone 193a12, reverse read cpg193a12.rt1a	0.21
582	AF121948.1	Homo sapiens telomerase reverse transcriptase	0.003
584	Y10019	R.norvegicus mRNA for DRM protein	0.21
585	AF145653.1	Drosophila melanogaster clone GH08860 BcDNA.GH08860 (BcDNA.GH08860) mRNA, complete cds	0.64
586	M88321	Gossypium hirsutum group 4 late embryogenesis-abundant protein (Lea14-A) gene, complete cds.	0.024
587	S82821	GSTA5=glutathione S-transferase Yc2 subunit {5' region, intron 1} [rats, Morris hepatoma cell line, Genomic, 2212 nt, segment 1 of 3]	1.9
588	AF039857	5 Homo sapiens retinal pigment epithelium-specific protein (RPE65) gene, exon 3	0.023
589	X05034	Rat C2A gene for prostatic binding protein (PBP)	0.2
590	U13177	Rattus norvegicus clone ubc4a ubiquitin conjugating enzyme (E217kB) mRNA, complete cds.	0.071
591	AF081530	Homo sapiens neuralized binding protein mRNA, complete cds	e-143
592	Z73328	H.sapiens DNA (chromosome 13q, clone 117A11, 856 bp)	0.023
593	D49733	Mouse lamin A/C and C2 genes, exon 6, 7, 8, 9, 10, 11 and 12, complete cds	2.3
594	L04603	Trypanosoma cruzi R27-2 protein gene, complete cds.	2.3
595	AF045742	Xenopus laevis Smad7 mRNA, complete cds	0.72
596	D83993	Fission yeast DNA for chromosome II cosmid 1228 sequence	0.7

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
597	L77036	Homo sapiens (subclone 5_d9 from P1 H19) DNA sequence.	0.008
598	AE001414	Plasmodium falciparum chromosome 2, section 51 of 73 of the complete sequence	0.008
599	AF001893	Human MEN1 region clone epsilon/beta mRNA, 3' fragment	0.2
601	Z69652	Human DNA sequence from cosmid L75B9, Huntington's Disease Region, chromosome 4p16.3	0.023
602	Z16517	H. sapiens (D13S155) DNA segment containing	0.041
603	X14448	Human GLA gene for alpha-D-galactosidase A (EC 3.2.1.22)	0.71
604	AF055481	Homo sapiens normal epithelial cell-specific 1	0.029
605	AJ002550	Homo sapiens MMP-1 gene, promoter region	6E-11
606	AF037454	Mus musculus ubiquitin protein ligase (Itch) mRNA, complete cds	0.0009
607	U96108	Staphylococcus carnosus (3R)-hydroxymyristoyl acyl carrier protein dehydrase homolog (fabZ) gene, partial cds, YwpF homolog, single-strand binding protein homolog Sce...	0.8
608	X53334	Chicken mRNA for annexin II	0.029
609	AF045742	Xenopus laevis Smad7 mRNA, complete cds	0.028
610	AF045742	Xenopus laevis Smad7 mRNA, complete cds	0.085
611	AF045742	Xenopus laevis Smad7 mRNA, complete cds	0.089
612	D16474	Human mRNA, Xq terminal portion	0.00003
613	NM_004955.1	Homo sapiens equilibrative nucleoside transporter 1 (ENT1) mRNA >gi 1845344 gb U81375 HSU81375 Human placental equilibrative nucleoside transporter 1	0.00003
614	AB019944.1	Arabidopsis thaliana gene for sigma factor SigC, complete cds	1.9
615	AB012181	Homo sapiens DNA, anonymous heat-stable fragment RP8-6A	1E-34
616	AF106929.1	Medicago truncatula putative cell wall protein (AM1) mRNA, complete cds	0.2
617	L09105	Homo sapiens glucos phosphate isomerase mRNA, intron with a conserved tandem repeat.	0.00003
618	X06292	Human c-fes/fps proto-oncogene	0.028
619	NM_003951.1	Homo sapiens solute carrier family 25 member 14 (SLC25A14), nuclear gene encoding mitochondrial product, mRNA mitochondrial carrier protein-1 (BMCP1) mRNA, nuclear gene encoding mitochondrial protein, complete cds	e-173
620	AL050089.1	Homo sapiens mRNA; cDNA DKFZp586E0518 (from clone DKFZp586E0518)	e-166
621	AF045742	Xenopus laevis Smad7 mRNA, complete cds	0.25
622	AF045742	Xenopus laevis Smad7 mRNA, complete cds	0.26
623	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.009



**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
624	D32056	Human gene for 2-oxoglutarate dehydrogenase, exon 1 sequence	0.003
625	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.027
626	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.028
627	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.028
628	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.029
629	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.028
630	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.028
631	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.029
632	Z69364	Human DNA sequence from cosmid L96F8, Huntington's Disease Region, chromosome 4p16.3 contains EST and cDNA >gi 1182000 emb Z69365 HSL96F8A Human DNA sequence from cosmid L96F8, Huntington's Disease Region, chromosome 4p16.3 contains EST and cDNA	8E-13
633	NM_004435.1	Homo sapiens endonuclease G (ENDOG), nuclear gene encoding mitochondrial protein, mRNA G (ENDOG) mRNA	9E-13
634	U46837	Human RNA polymerase II holoenzyme component SRB7 (SRB7) mRNA, complete cds.	0.21
635	M13973	Bovine protein kinase C mRNA, complete cds.	3E-14
636	AB012917	Homo sapiens mRNA for serine protease (TLSP), complete cds	e-143
637	M57750	S.pombe cut2+ gene, complete cds.	0.22
638	V00584	Human gene hY1 encoding a cytoplasmic Ro RNA	7E-21
639	L81854	Homo sapiens (subclone 2_b8 from P1 H48) DNA sequence	2E-11
640	X73897	H.sapiens zinc finger domain ZF21.3 DNA	2E-31
641	L10239	Insertion sequence IS1141 (from Mycobacterium intracellulare strain Va14), transposase gene, complete cds, clone pVT365.	1.8
642	AF097025	Homo sapiens cysteine desulfurase (nifS) mRNA, complete cds	e-170
644	AF008219	Borrelia afzelii R-IP3 chromosome right end, arcA and arcB genes, complete cds	0.092
645	NM_003496.1	Homo sapiens Transformation/transcription domain-associated protein (TRRAP) mRNA, and translated products >gi 4165076 gb AF076974 AF076974 Homo sapiens TRRAP protein (TRRAP) mRNA, complete cds	6E-43
646	AF000305.1	Brassica napus steroid sulfotransferase 1 gene, complete cds	0.76
647	AF016031	Homo sapiens thyroid hormone receptor activator molecule (TRAM-1) mRNA, complete cds	8E-34
648	M97168	Homo sapiens X (inactive)-specific transcript	0.22

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
649	NM_003011.1	Homo sapiens SET translocation (myeloid leukemia-associated) (SET) mRNA cds.	9E-36
650	NM_004669.1	Homo sapiens chloride intracellular channel 3 (CLIC3) mRNA >gi 4323621 gb AF102166 AF102166 Homo sapiens intracellular chloride channel CLIC3 (CLIC3) mRNA, complete cds	4E-50
651	AJ010479.1	Homo sapiens mRNA for kinesin-like protein 2	e-171
652	U29932	Human AMP deaminase (AMPD3) gene, intron 2, partial sequence.	1E-37
653	AF028233	Homo sapiens distal-less homeobox protein (DLX3) gene, complete cds	3E-47
654	AF151978.1	Homo sapiens amino acid transporter B0+	e-165
655	Z64037	H.sapiens CpG island DNA genomic MseI fragment, clone 95g8, forward read cpg95g8.ft1a	2E-50
656	M32140	T.brucei heat shock protein (Hsp70) gene, upstream region.	1.9
657	NM_003164.1	Homo sapiens syntaxin 5A (STX5A) mRNA mRNA, complete cds	7E-54
658	NM_001538.1	Homo sapiens heat shock transcription factor 4 (HSF4) mRNA >gi 1813425 dbj D87673 D87673 Homo sapiens mRNA for heat shock transcription factor 4, complete cds	1E-57
659	NM_001538.1	Homo sapiens heat shock transcription factor 4 (HSF4) mRNA >gi 1813425 dbj D87673 D87673 Homo sapiens mRNA for heat shock transcription factor 4, complete cds	1E-57
660	L76569	Homo sapiens (clones cYG3, B5P6C4) fragile X E mental retardation syndrome protein (FMR2) mRNA, complete cds.	0.21
661	X55110	Human mRNA for neurite outgrowth-promoting protein	2E-59
662	L20468	Rattus norvegicus cerebroglycan mRNA, complete cds.	3E-86
663	NM_005324.1	Homo sapiens H3 histone, family 3B (H3.3B)	e-127
664	NM_001283.1	Homo sapiens clathrin-associated/assembly/adaptor protein, small 1 Homo sapiens mRNA for sigma1A subunit of AP-1 clathrin adaptor complex, complete cds	e-171
665	AF007867	Lymantria dispar pheromone binding protein 1	1.8
669	U93704	Riftia pachyptila endosymbiont bacterioferritin comigratory protein homolog (bcp), sensor protein RssA complete cds	1.9
670	AB002315	Human mRNA for KIAA0317 gene, complete cds	1.8
673	X96585	M.musculus mRNA for NOV protein	1.8
674	D84103	Homo sapiens mRNA for mitochondrial DNA polymerase gamma, complete cds	1.7

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
675	AB000834.2	Nicotiana tabacum gene for thaumatin-like protein SE39b, complete cds	1.8
676	AF129853.1	Gymnascella hyalinospora strain VAMH 7366 18S ribosomal RNA gene, partial sequence; internal transcribed spacer 1, 5.8S ribosomal RNA gene and internal transcribed spacer 2, complete sequence; and 28S ribosomal RNA gen...	0.2
678	AB029007.1	Homo sapiens mRNA for KIAA1084 protein, complete cds	e-168
679	AB007957	Homo sapiens mRNA, chromosome 1 specific transcript KIAA0488	e-145
680	AL080168.1	Homo sapiens mRNA; cDNA DKFZp434C151 (from clone DKFZp434C151)	0
681	D32166.1	Poplar mRNA for cellulase (endo-1, 4-beta-glucanase), complete cds	1.6
683	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.03
684	U32792	Haemophilus influenzae Rd section 107 of 163 of the complete genome	2.1
685	X74969	R.norvegicus gene for prostatic acid phosphatase	0.02
686	U70998	Phanerochaete chrysosporium manganese peroxidase isozyme 3 (mnp3) gene, complete cds	0.73
687	NM_005969.1	Homo sapiens nucleosome assembly protein 1-like 4 (NAP1L4) mRNA >gi 1679778 gb U77456 HSU77456 Human nucleosome assembly protein 2 mRNA, complete cds	2.1
688	AJ132369.1	Sorites orbiculus SSU rRNA, isolate 206	0.67
690	U04435	Drosophila melanogaster GLI-Kr zinc finger pair-rule protein mRNA, complete cds. embryo, mRNA, 2959 nt]	0.67
691	X69511	G.gallus Acra-2 gene alpha-2 subunit	0.67
692	AF140762.1	Homo sapiens neuronal acetylcholine receptor beta-3 subunit precursor (CHRNA3) gene, exon 3	2
695	Z74734	C.porcellus mRNA for guanylyl cyclase C	1.9
696	L76081	Clostridium difficile ADP-ribosyltransferase enzymatic and binding component (cdtA and cdtB) genes, complete cds's	0.63
697	X82657	H.sapiens IRLB gene (exon 4)	0.66
698	AB020649.1	Homo sapiens mRNA for KIAA0842 protein, partial cds	e-143
699	NM_005499.1	Homo sapiens SUMO-1 activating enzyme subunit 2 (UBA2) mRNA >gi 4096671 gb U35832.1 HSU35832 Human anthracycline-associated resistance ARX mRNA, complete cds	1E-47

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
700	AB018255.1	Homo sapiens mRNA for KIAA0712 protein, complete cds	0.008
701	AL035496.6	Human DNA sequence from clone 437O22 on chromosome 22q12.2-13.1. Contains the 5' part of a novel VHS domain containing protein similar to predicted worm and human proteins. Contains ESTs, GSSs and a putative CpG islan...	0.0000001
702	AB020664.1	Homo sapiens mRNA for KIAA0857 protein, partial cds	e-162
703	AL050269.1	Homo sapiens mRNA; cDNA DKFZp564C103 (from clone DKFZp564C103)	e-173
704	M62324	Human modulator recognition factor I (MRF-1) mRNA, 3' end.	1.8
705	Z69363	Human DNA sequence from cosmid L60G9B, Huntington's Disease Region, chromosome 4p16.3 contains ESTs	0.61
707	AF068890	Bos taurus PIM1 protein (PIM1) gene, exon 5 and partial cds	0.64
708	NM_000211.1	Homo sapiens integrin beta chain, beta 2 leukocyte adhesion protein (LFA-1/Mac-1/p150,95 family) beta subunit mRNA.	0.65
709	U38550	Arabidopsis thaliana pre zeta-carotene desaturase precursor (zds) mRNA, complete cds.	1.9
710	AF147787.1	Homo sapiens hepatocyte nuclear factor-3 beta gene, complete cds	0.22
711	AF140549.1	Enterococcus faecium unknown gene	0.19
712	AF031630	Danio rerio homeobox protein LIM-3 (lim3) gene, exons 2 and 3	0.19
713	AF007883	Homo sapiens MHC class II HLA-DRB1 (HLA-DRB1*10) intron 1 sequence	0.021
714	X71844	C.perfringens uapC, cpe, and nadC genes	0.63
715	M87359	Yeast Eco RI fragment.	0.56
716	AF088887	Oryctolagus cuniculus interleukin-10 precursor, mRNA, complete cds	0.62
717	AF151897.1	Homo sapiens CGI-139 protein mRNA, complete cds	3E-38
718	U65948	Zea mays starch branching enzyme IIa (Sbe2a) mRNA, partial cds	0.61
719	AF086443	Homo sapiens full length insert cDNA clone ZD81C11	1E-68
720	AJ011767	Sus scrofa mRNA for neuron-derived orphan receptor-1 alfa transcription factor	0.18
721	U78547	Chlamydomonas reinhardtii PF20 mRNA, complete cds	0.00009
722	U25686	Drosophila melanogaster ecdysone-regulated (E93) mRNA, complete cds.	0.54

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
723	AB029017.1	Homo sapiens mRNA for KIAA1094 protein, complete cds	e-102
724	U67533	Methanococcus jannaschii section 75 of 150 of the complete genome	0.4
725	L81892	Homo sapiens (subclone 2_h6 from P1 H62) DNA sequence	2.2
726	U83650	Mus caroli Sp100 gene, exon 13	2.1
727	X14710	B.taurus beta-lactoglobulin gene	0.23
728	AF034920	Homo sapiens tubby like protein 1 (TULP1) gene, exons 9-11	2
729	D83999	Mus musculus mRNA for the third largest RNA polymerase II subunit, complete cds	0.22
730	U18109	Macropus rufogriseus MHC class II DR alpha protein precursor (Maru-DRA) mRNA, complete cds.	0.66
731	Y18476	Trichophyton rubrum mitochondrial cytb gene and NADH1 to NADH5 genes	0.67
732	Y18476	Trichophyton rubrum mitochondrial cytb gene and NADH1 to NADH5 genes	0.65
733	AF148461.1	Homo sapiens CLNS1A gene, intron 1 sequence	e-160
734	L80007	Equine adenovirus 2 385/75 hexon and endopeptidase genes, complete cds	1.9
735	X76128	T.thermophila MSE 2.9 (left) gene germline limited sequence	0.22
737	AF141658.1	Ictalurus punctatus EB1 mRNA, complete cds	0.62
738	U67576	Methanococcus jannaschii section 118 of 150 of the complete genome	0.21
739	AL050269.1	Homo sapiens mRNA; cDNA DKFZp564C103 (from clone DKFZp564C103)	e-159
740	AF065389	Homo sapiens tetraspan NET-4 mRNA, complete cds	0.21
741	AB007455.1	Homo sapiens mRNA for P53TG1-A, complete cds	0.22
742	U67399	Mus musculus K-cadherin/cadherin-6 mRNA, partial cds	2
743	AB018315.1	Homo sapiens mRNA for KIAA0772 protein, complete cds	9E-78
745	AL080164.1	Homo sapiens mRNA; cDNA DKFZp564C1940 (from clone DKFZp564C1940)	5E-20
746	X00007	Bacillus subtilis 5' end of ribosomal RNA operon rrmB	0.22
747	AF058234.1	Scutellastra longicosta 16S ribosomal RNA gene, mitochondrial gene for mitochondrial RNA, partial sequence	0.022
748	M99362	Rhesus macaque polyoma virus large T antigen gene, 3' end.	0.2
749	U80458	Human microtubule associated protein 1A mRNA, partial cds	0.067

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
750	AB019533.1	Oryza sativa mRNA for Nad-dependent formate dehydrogenase, complete cds	0.22
751	Z69723	Human DNA sequence from cosmid U238E5, between markers DXS6791 and DXS8038 on chromosome X	0.2
752	AF056936	Plasmodium falciparum mature parasite-infected erythrocyte surface antigen gene, complete cds	1.8
753	AJ010396.1	Homo sapiens DKC1 gene, exons 12 to 15	0.63
754	U19253	Xenopus laevis/gilli complement component C3 mRNA, partial cds.	1.9
755	M82872	S.cerevisiae protein-tyrosine phosphatase complete cds.	0.21
756	AF045188	Salmo salar ribosomal protein L18a mRNA, complete cds	0.21
757	AJ001118	Mus musculus mRNA for monoglyceride lipase	0.62
758	Y10377	C.albicans TOP2 gene	1.8
759	AB014573	Homo sapiens mRNA for KIAA0673 protein, partial cds	e-168
760	L24113	Saccharomyces cerevisiae Ca2+ regulatory protein	0.19
761	M96739	Human NSCL-1 mRNA sequence.	1.7
762	AF035006	Human respiratory syncytial virus, recombinant mutant rA2cp, complete genome	0.56
763	AF065389	Homo sapiens tetraspan NET-4 mRNA, complete cds	0.19
764	NM_006354.1	Homo sapiens transcriptional adaptor 2 complex (TADA3L) mRNA >gi 3335554 gb AF069733 AF069733 Homo sapiens ADA3-like protein mRNA, complete cds	e-154
765	M73752	Gossypium hirsutum Lea4-A gene, complete CDS.	0.06
766	X79192	F.brownii pdk gene	0.54
767	X14891	H.sapiens gene for transforming growth factor-beta 3 (TGF-beta 3) exon 7	0.076
768	Z78708	H.sapiens flow-sorted chromosome 6 HindIII fragment, SC6pA14H12	0.076
769	AF068902	Streptococcus pneumoniae D-glutamic acid adding enzyme MurD (murD), undecaprenyl-PP-MurNAc-pentapeptide-UDPGlcNAc GlcNAc transferase (murG), cell division protein DivIB (divIB), orotidine-5'-decarboxylase PyrF (pyrF), an...	0.23
770	U62588	Cricetulus griseus beta-1,6-N-acetylglucosaminyltransferase Lec4 cell line insertion mutant mRNA, complete cds	2
771	AJ236354.1	Timarcha coarcticolis mitochondrial partial tRNA-Leu gene and COII gene, isolate Los Barrios, Cadiz, Spain	0.026
772	U67604	Methanococcus jannaschii section 146 of 150 of the complete genome	0.22

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
773	AB018257.1	Homo sapiens mRNA for KIAA0714 protein, partial cds	e-178
774	AF169299.1	Equus caballus microsatellite HTG15 sequence	0.21
775	U96289	Homo sapiens Ig heavy chain VH3 region (VH3-30.3) mRNA, partial cds	0.64
776	Y07521	Mouse neuroblastoma-Rat glioma hybrid cell line mRNA for a potassium channel protein NGK2	0.076
777	NM_003966.1	Homo sapiens sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain semaphorin F homolog mRNA, complete cds	0.071
778	U66524	Dictyostelium discoideum ORFveg158 mRNA, partial cds	0.071
779	M81388	Chilo iridescent virus DNA-directed RNA polymerase and helicase genes, complete cds's. DNA-depenent RNA polymerase largest subunit homolog iridescent virus type 6, Genomic, 3 genes, 7990 nt]	0.073
780	AF132944.1	Homo sapiens CGI-10 protein mRNA, complete cds	e-170
781	AJ001700	Mus musculus mRNA for neuroserpin	0.069
782	U50421	Human Down Syndrome region of chromosome 21, clone A4B8-1D8.	0.61
783	X74159	K.lactis MBP1 gene	1.9
784	D87682	Human mRNA for KIAA0241 gene, partial cds	0.071
785	AB015633.1	Homo sapiens mRNA for type II membrane protein, complete cds, clone:HP10481	7E-23
786	AF022414	Trichomonas vaginalis glyceraldehyde-3-phosphate dehydrogenase (gap2) gene, partial cds	0.2
787	M36996	Mouse LIM1 and LIM2 sequence DNA.	0.21
788	M95171	Aedes aegypti LINE retrotransposon Juan-A including DNA binding protein and reverse transcriptase-like protein mRNA, complete coding regions.	0.069
789	U47661	Lupinus luteus proline-rich protein PRP2 precursor (LIPRP2) gene, complete cds	0.59
790	X55581	H.sapiens immunoglobulin heavy chain gene, diversity region	0.59
791	AF104500	Farfantepenaeus duorarum isolate FD6 mitochondrial control region	0.065
792	AF094519	Mus musculus diaphanous-related formin (Dia2) mRNA, complete cds	3E-79
793	X95267	G.gallus mRNA for ryanodine receptor type 3	0.63
794	K01872	Bacteriophage Cp-1 (Streptococcus pneumoniae), 3' inverted terminal repeat.	0.063

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
795	AF094573	Rice tungro bacilliform virus isolate T10 P194 gene, partial cds	1.7
796	X15061	Glycine máx lbc3 gene for leghemoglobin C3	0.062
797	Y17267	Mus musculus mRNA for ubiquitin conjugating enzyme	3E-89
798	AF149109.1	Rickettsia australis strain PHS outer membrane protein B (ompB) gene, partial cds	0.061
799	AJ004870	Thermoanaerobacterium thermosaccharolyticum ptaA and ackA genes, orf1, orf2, orf3, orf4	0.19
800	S77555	corticotropin receptor/ACTH receptor {5' region}	0.19
801	AJ130796	Mus musculus APC2 gene, exon 14	1.6
802	AE001229	Treponema pallidum section 45 of 87 of the complete genome	1.7
803	X16137	Suillus sinuspaulianus mitochondrial large subunit ribosomal RNA gene, part	0.69
804	AF048839.1	Arabidopsis thaliana Atmyb103 (MYB103) gene, complete cds	0.68
805	Z86109	S.carlsbergensis 12 kb region of chromosome III	0.025
806	X67053	S.tuberosum ppc mRNA for phosphoenolpyruvate carboxylase	0.67
807	X13423	Phaseolus vulgaris tRNA-Pro(UGG3) gene	2
808	Z17118	H. sapiens (D9S179) DNA segment containing (CA) repeat; clone AFM248wfl; single read	0.65
809	Z23386	H. sapiens (D5S467) DNA segment containing	0.072
810	M12729	Mouse T-cell surface antigen T3 delta-chain gene, exons 2,3,4 and 5, from B8C3 (anti-porcine insulin T-T) hybridoma, clone pMT-2.	0.23
811	AF012551	Plasmodium falciparum ornithine decarboxylase	0.21
812	L08265	Human skeletal muscle chloride channel (HUMCLC) gene, exon 7.	0.075
813	X00616	Tobacco chloroplast gene P32 for thylakoid membrane protein	0.07
814	U79731	Plasmodium berghei extrachromosomal plastid PB-1, ORF470 gene, partial cds, tRNA-Thr, large subunit ribosomal RNA, tRNA-Met, tRNA-Arg, tRNA-Val, tRNA-Arg, tRNA-Leu, tRNA-Asn, tRNA-Ala, and small subunit ribosomal RNA genes...	0.023
815	S82293	II beta-globin=II beta-globin {5' region} [rats, mRNA Partial, 1428 nt]	2
816	AJ007398.1	Homo sapiens mRNA for PBK1 protein	0
817	AL109849.1	Streptomyces coelicolor cosmid 3A3	0.023



**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
819	U84223	Canine herpesvirus cIR6, cUS2, cUS3, cUS4, cUS6, cUS7, cUS8 and cUS9 genes, complete cds	0.067
820	AF036233	Homo sapiens cdc25B phosphatase (CDC25B) gene, alternatively spliced, partial cds	0.024
821	AB016195.1	Homo sapiens ELK1 pseudogene (ELK2) and immunoglobulin heavy chain gamma pseudogene (IGHGP)	1E-16
822	L10820	Human N-formyl peptide receptor (FPR1) gene, complete cds and Alu repeats.	0.023
823	AF039423	Cebus olivaceus blue opsin gene, exons 2 and 3	0.58
824	Z97214	Xenopus laevis mRNA for MILZ protein	1.8
825	Y17038	Mus musculus bassoon gene, exon 6 to 11	1.7
826	X92518	H.sapiens mRNA for HMGI-C protein	0.065
827	X06414	Mycoplasma capricolum ribosomal protein gene cluster	0.62
828	AJ002019	Saccharomyces uvarum mitochondrial coxII gene, partial	0.061
829	D84395	Bombyx mori DNA for cecropin A, complete cds	0.18
830	D86077	Homo sapiens DNA for cyclin G, partial cds	0.18
831	AF144573.1	Mesocricetus auratus Mx-interacting protein kinase PKM mRNA, complete cds	2E-18
832	AF123653.1	Homo sapiens FEZ1 (FEZ1) gene, complete cds	0.009
833	X71018	N.tabacum NPG-G27Y mRNA for polygalacturonase	0.025
834	D63884	Anthocidaris crassispina mRNA for intermediate chain 1, complete cds	0.072
835	AE001393	Plasmodium falciparum chromosome 2, section 30 of 73 of the complete sequence	0.008
836	AE001395	Plasmodium falciparum chromosome 2, section 32 of 73 of the complete sequence	0.0003
837	AF007164	Drosophila melanogaster mRNA sequence	0.21
838	AB005744	Perilla frutescens DNA for 1-limonene synthase, complete cds	0.21
839	AF067143	Homo sapiens myosin heavy chain (MYH8) gene, partial cds	0.21
840	X04130	Watermelon mitochondrial URF1 gene	0.008
841	X95439	S.xylosus aroA, ccpA, acuC and acuA genes	0.008
842	AB007404.1	Oryza sativa gene for alanine aminotransferase, complete cds	0.063
843	X59823	Human chromosome 8 flanking hypervariable simple repeat DNA (clone HZREP32)	0.21
844	AF122981.1	Arabidopsis lyrata cultivar NC4 RPM1 gene, 5' sequence	0.002
845	AF016667.2	Caenorhabditis elegans cosmid T20H12	4.9

**Table 2A:** Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
846	V00184	Slime mold (D. discoideum) gene for actin 2 sub1 actin 2 (sub 1) gene 5' end.	0.061
847	AB020656.1	Homo sapiens mRNA for KIAA0849 protein, partial cds	0.23
848	X82107	H.sapiens gene for tryptophanyl-tRNA synthetase	1.9
849	M81385	Mouse liver receptor homologous protein (LRH-1) mRNA, complete cds.	0.025
850	NM_006401.1	Homo sapiens acidic protein rich in leucines silver-stainable protein SSP29 mRNA, complete cds	0.008
851	AL010149	Plasmodium falciparum DNA *** SEQUENCING IN PROGRESS *** from contig 3-82, complete sequence	0.21
852	AF151826.1	Homo sapiens CGI-68 protein mRNA, complete cds	e-153
853	AE001402	Plasmodium falciparum chromosome 2, section 39 of 73 of the complete sequence	0.021
854	U96976	Homo sapiens MET proto-oncogene, intron 6, 3' end	0.068
855	D85545	Yeast chk1 and ucbP4 DNA, partial and complete cds	1.7
856	AF001175	Homo sapiens ribonuclease P protein subunit p14 (Rpp14) mRNA, complete cds	7E-45
857	U14724.1	Anticarsia gemmatalis nuclear polyhedrosis virus genomic repeat region	0.0008
858	AL008641	Human DNA sequence from cosmid N100B10 on chromosome 22q12.3	0.06
859	Y00326	Human sis proto-oncogene upstream region	0.19
860	AF003483	Habrabracon hebetor 16S ribosomal RNA gene, partial sequence	0.0007
861	AL049265.1	Homo sapiens mRNA; cDNA DKFZp564F053 (from clone DKFZp564F053)	e-122
862	Z69351	B.vulgaris repetitive DNA (clone pDRV1)	0.0009
863	L28998	Theileria parva 28S ribosomal RNA (28S rRNA) gene.	0.024
864	X06000	G.gallus carbonic anhydrase II gene exons 1-2	0.067
865	AB000565	Homo sapiens DNA for repeat sequence Alu	1E-26
866	AE000761	Aquifex aeolicus section 93 of 109 of the complete genome	0.22
867	AF017145	Homo sapiens multidrug resistance protein	0.0008
868	J05451	Human gastric (H <sup>+</sup> + K <sup>+</sup> )-ATPase gene, complete cds.	0.003
869	AB018258.1	Homo sapiens mRNA for KIAA0715 protein, partial cds	0.007
870	D78572	Mus musculus mRNA for membrane glycoprotein, complete cds >gi 3251779 dbj E12950 E12950 cDNA GA3-43 encoding novel polypeptide which appear when differentiate from embryo-tumor cell P19 to nerve cell	0.0001

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
871	AC001017	Homo sapiens (subclone 2_g8 from P1 H43) DNA sequence	0.003
872	AB018284.1	Homo sapiens mRNA for KIAA0741 protein, complete cds	0.0009
873	Z54147	Human DNA sequence from cosmid L129H7, Huntington's Disease Region, chromosome 4p16.3 contains CpG island	0.002
874	Z54147	Human DNA sequence from cosmid L129H7, Huntington's Disease Region, chromosome 4p16.3 contains CpG island	0.002
875	NM_006392.1	Homo sapiens nucleolar protein (KKE/D repeat) mRNA for nucleolar protein hNop56	e-157
876	L43392	Homo sapiens (subclone 6_a8 from P1 H16) DNA sequence.	0.00001
877	X75670	O.sativa mRNA for cytochrome b5	0.00001
878	Z23808	H. sapiens (DXS1199) DNA segment containing	0.000009
879	L48473	Homo sapiens (subclone 7_e11 from P1 H16) DNA sequence.	0.003
880	AF074908.1	Homo sapiens neuronal and epithelial glutamate transporter (SLC1A1) gene, exon 7	5E-11
881	X02536	Human preproenkephalin B gene 5' region and exon 1 >gi 182100 lcl X00174 Human enkephalin B (enkB) gene, 5' flank and exon 1.	0.000001
882	AL109681.1	Homo sapiens mRNA full length insert cDNA clone EUROIMAGE 112333	0.000003
883	M88599	Entamoeba histolytica P-glycoprotein-1 (pgp1) gene, complete cds.	0.07
884	M38188	Human unknown protein from clone pHGR74 mRNA, complete cds.	6E-10
885	U50531	Human BRCA2 region, mRNA sequence CG030	0.000001
886	Z64533	H.sapiens CpG island DNA genomic MseI fragment, clone 134d9, forward read cpg134d9.ft1a	0.0000004
887	NM_004422.1	Homo sapiens dishevelled 2 (homologous to Drosophila dsh) (DVL2) mRNA dishevelled 2 (DVL2) mRNA, complete cds	e-116
888	S66168	sterol regulatory element 1 binding protein cells, mRNA Partial, 547 nt, segment 2 of 2] 5527690	0.008
889	L29556	Human (clone hSTX) sialyltransferase mRNA, 3' end.	0.008
890	AF036703	Caenorhabditis elegans cosmid T11F8	0.53
891	Z68281	Human DNA sequence from cosmid L2F10, Huntington's Disease Region, chromosome 4p16.3 contains Human G protein coupled receptor kinase-like, and an RFLP	0.000004
892	AL035046.5	Human DNA sequence from clone 321I20 on chromosome 1q32.1-41 Contains GSSs, complete sequence	0.0001
893	Y15083	Homo sapiens p14.5-like gene and Alu repeat	3E-13

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
894	AF044123	Homo sapiens clone SUPTH48 sequence flanking the HIV-1 provirus integration site	0.19
895	J00139	Human dihydrofolate reductase gene, exon 6 and 3' flank.	7E-44
896	Y16790	Homo sapiens hHa4 gene, complete CDS	3E-14
897	U50105	Human ankyrin (ANK1) gene, exon 15	0.00000004
898	AB000537	Schizosaccharomyces pombe mRNA for snoRNP protein GAR 1, complete cds	0.00000005
899	D79990	Human mRNA for KIAA0168 gene, complete cds	0.000001
900	AC002183	Homo sapiens (subclone 2_h8 from BAC H111) DNA sequence	0.00000004
901	AF045742	Xenopus laevis Smad7 mRNA, complete cds	0.11
902	AF072468	Homo sapiens (JH8) mRNA, partial cds	2E-19
903	M11167	Human 28S ribosomal RNA gene.	2E-09
904	D87117	Mus musculus mRNA for SAP102, complete cds	2E-09
905	AB023189.1	Homo sapiens mRNA for KIAA0972 protein, complete cds	0
906	Y07554	Psychrobacter sp. pim gene	0.68
907	AC005190	Homo sapiens PAC clone DJ1152D16 from Xq23, complete sequence [Homo sapiens]	2E-29
908	AF045742	Xenopus laevis Smad7 mRNA, complete cds	0.28
909	AF135183.1	Homo sapiens Recq helicase 5 (RECQ5) gene, alternative splice products, complete cds	e-146
910	U58884	Mus musculus SH3-containing protein SH3P7 mRNA, complete cds. similar to Human Drebrin	2E-13
911	U29113	Human leiomyoma cell line LM-30.1/SV40 ectopic sequence from HMGI-C fusion mRNA, 3' sequence, clone pCH110.	2E-13
912	AC002252	Homo sapiens (subclone 1_g7 from BAC H76) DNA sequence	3E-24
913	U95097	Xenopus laevis mitotic phosphoprotein 43 mRNA, partial cds	0.09
914	NM_003437.1	Homo sapiens zinc finger protein 136 (clone pHZ-20) (ZNF136) mRNA >gi 487784 gb U09367 HSU09367 Human zinc finger protein ZNF136	2E-19
915	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.029
916	M12523	Human serum albumin (ALB) gene, complete cds.	1E-15
917	AF043324	Homo sapiens N-myristoyltransferase 1 mRNA, complete cds	2E-51
918	L43631	Homo sapiens scaffold attachment factor B (SAF-B) mRNA, partial cds	0.008
919	L01616	Tribolium castaneum zinc finger protein (Krueppel domain region) gene, partial cds.	4E-18
920	D12688	Mouse P-cadherin gene, exon 1 and 2	2
921	X94770	H.sapiens mRNA for epithelial membrane protein-2	2E-19

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
922	NM_000946.1	Homo sapiens primase, polypeptide 1 (49kD) for DNA primase (subunit p48)	2E-20
923	AE000818	Methanobacterium thermoautotrophicum from bases 264585 to 276866 (section 24 of 148) of the complete genome	1.9
924	AL035418.6	Human DNA sequence from clone 141I3 on chromosome 22q13.1-13.33 Contains an STS and a GSS, complete sequence [Homo sapiens]	0.0009
925	AF086040	Homo sapiens full length insert cDNA clone YX52E07	6E-73
926	AL049310.1	Homo sapiens mRNA; cDNA DKFZp564B206 (from clone DKFZp564B206)	2E-09
927	J01415	Human mitochondrion, complete genome	3E-24
928	AF044122	Homo sapiens clone SUPTH47 sequence flanking the HIV-1 provirus integration site	9E-25
929	Z22640	H.magnipapillata homeobox containing exon	0.076
930	NM_004859.1	Homo sapiens clathrin, heavy polypeptide-like 2 (CLTCL2) mRNA >gi 434760 dbj D21260 HUMORFEA Human mRNA for KIAA0034 gene, complete cds	4E-27
931	AL049701.1	Human gene from PAC 433G19, chromosome 1	e-162
932	NM_004698.1	Homo sapiens U4/U6-associated RNA splicing factor (HPRP3P) mRNA >gi 2708306 gb AF016370 AF016370 Homo sapiens U4/U6 small nuclear ribonucleoprotein hPrp3 mRNA, complete cds	4E-28
933	NM_003983.1	Homo sapiens solute carrier family 7 for KIAA0245 gene, complete cds	1E-30
934	NM_003440.1	Homo sapiens zinc finger protein 140 (clone pHZ-39) (ZNF140) mRNA >gi 487786 gb U09368 HSU09368 Human zinc finger protein ZNF140	1E-30
935	AL050392.1	Homo sapiens mRNA; cDNA DKFZp586I031 (from clone DKFZp586I031)	7E-33
936	NM_002714.1	Homo sapiens protein phosphatase 1, regulatory subunit 10 (PPP1R10) mRNA	e-121
937	M27830	Human 28S ribosomal RNA gene, complete cds.	2E-33
938	M27830	Human 28S ribosomal RNA gene, complete cds.	2E-33
939	Z72521	Human DNA sequence from cosmid N29F4 on chromosome 22q11.2-qter contains STS	0.000001
940	AF056195	Homo sapiens neuroblastoma-amplified protein mRNA, complete cds	2E-72
941	Z35989	S.cerevisiae chromosome II reading frame ORF YBR120c	0.19
942	U76557	Rattus norvegicus O-GlcNAc transferase, p110 subunit (OGT) mRNA, complete cds	9E-36

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
943	Z56141	H.sapiens CpG island DNA genomic MseI fragment, clone 8g7, forward read cpg8g7.ft1a	3E-37
944	AF132951.1	Homo sapiens CGI-17 protein mRNA, complete cds	e-165
945	NM_006548.1	Homo sapiens IGF-II mRNA-binding protein 2 sapiens hepatocellular carcinoma autoantigen (p62) mRNA, complete cds	e-140
946	AF010317	Homo sapiens Pig3 (PIG3) gene, partial cds	3E-38
947	AB023151.1	Homo sapiens mRNA for KIAA0934 protein, partial cds	2E-54
948	Z69649	Human DNA sequence from cosmid L69F7B, Huntington's Disease Region, chromosome 4p16.3 contains Huntington Disease (HD) gene	1E-25
949	AC001159	Homo sapiens (subclone 1_h9 from PAC H92) DNA sequence	4E-17
950	AL080060.1	Homo sapiens mRNA; cDNA DKFZp564H172 (from clone DKFZp564H172)	5E-29
951	L07758	Human IEF SSP 9502 mRNA, complete cds.	4E-48
952	M29037	Human 17 beta-hydroxysteroid dehydrogenase	0.56
953	M36704	C.perfringens perfringolysin O (pfo) gene, complete cds.	0.22
954	U34991	Human endogenous retrovirus clone c18.4, HERV-H/HERV-E hybrid multiply spliced protease/integrase mRNA, complete cds, and envelope protein mRNA, partial cds	2E-61
955	AB002369	Human mRNA for KIAA0371 gene, complete cds	0.0009
956	AF098668	Homo sapiens acyl-protein thioesterase mRNA, complete cds	e-156
957	L12019	Actinidia deliciosa var deliciosa polygalacturonase gene, complete cds	0.19
958	Z12622	A.sativum mRNA encoding precursor alliinase	0.065
959	NM_003429.1	Homo sapiens zinc finger protein 85 (HPF4, HTF1) (ZNF85) mRNA >gi 1017721 gb U35376 HSU35376 Human repressor transcriptional factor (ZNF85) mRNA, complete cds.	2E-51
960	AP000249.1	Homo sapiens genomic DNA, chromosome 21q22.1, D21S226-AML region, clone:B762O15, complete sequence	0.0003
961	U16120	Human placental taurine transporter mRNA, complete cds.	2E-52
962	NM_002286.1	Homo sapiens lymphocyte-activation gene 3 mRNA for CD4-related protein involved in lymphocyte activation	2E-53
963	D63876	Human mRNA for KIAA0154 gene, partial cds	6E-54
964	NM_004128.1	Homo sapiens general transcription factor IIF, polypeptide 2 (30kD subunit) (GTF2F2) mRNA subunit of transcription initiation factor RAP30/74	7E-55

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
965	AF004691	Scutellospora heterogama 18S ribosomal RNA gene, partial sequence, 5.8S ribosomal RNA gene, complete sequence, and 26S ribosomal RNA gene, partial sequence	0.22
966	U67509	Methanococcus jannaschii section 51 of 150 of the complete genome	0.074
967	AB010059	Homo sapiens RBP56/hTAFII68 gene, exon 3, 4, 5	4E-80
968	AB007891	Homo sapiens KIAA0431 mRNA, partial cds	9E-60
969	NM_005873.1	Homo sapiens G alpha interacting protein (GAIP) mRNA >gi 1107697 emb X91809 HSPAIP H.sapiens mRNA for GAIP protein	4E-60
970	M76558	Human neuronal DHP-sensitive, voltage-dependent, calcium channel alpha-1D subunit mRNA, complete cds.	0.27
971	NM_003431.1	Homo sapiens zinc finger protein 124 (HZF-16) HZF-16=Kruppel-related zinc finger gene homolog HEP-G2, mRNA, 2080 nt]	2E-60
972	AB002584	Rattus norvegicus mRNA for beta-alanine-pyruvate aminotransferase, complete cds	0.00000002
973	X85133	H.sapiens RBQ-1 mRNA	2E-64
974	AJ130872.1	Porphyromonas gingivalis W50 receptor antigen (rag) locus encoding a major immunodominant 55kDa antigen	1.7
975	U67203	Mus musculus ACF7 neural isoform 1 (mACF7) mRNA, partial cds	2E-66
976	U67203	Mus musculus ACF7 neural isoform 1 (mACF7) mRNA, partial cds	3E-69
977	U55941	Expression vector pVP-HA2, complete sequence.	2E-79
978	AF074331.1	Homo sapiens PAPS synthetase-2 (PAPSS2) mRNA, complete cds	e-173
979	X78684	M.musculus mRNA for B-cell receptor associated protein (BAP) 29	e-100
980	AF060539	Mus musculus channel interacting PDZ domain protein mRNA, complete cds	e-138
981	U55042	Bos taurus myosin X, complete cds	e-119
982	AB000172	Porcine mRNA for endopeptidase 24.16, complete cds	e-131
983	Z57139	H.sapiens CpG island DNA genomic MseI fragment, clone 165d10, forward read cpg165d10.ft1a	0.4
984	AB012917	Homo sapiens mRNA for serine protease (TLSP), complete cds	0
985	L39064	Homo sapiens interleukin 9 receptor precursor	6E-15
986	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.36
987	AF045188	Salmo salar ribosomal protein L18a mRNA, complete cds	0.38
988	AF045742	Xenopus laevis Smad7 mRNA, complete cds	0.43

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
989	AF055287	<i>Emericella nidulans</i> molybdenum cofactor biosynthetic protein (cnxF) gene, complete cds	4.4
990	AF045742	<i>Xenopus laevis</i> Smad7 mRNA, complete cds	0.38
991	X03991	Human glucagon gene	0.42
992	AJ131021.1	<i>Mus musculus</i> mRNA for pp90 ribosomal protein S6 kinase 3	2E-17
993	U18168	Human HLA class I genomic survey sequence, contains Alu.	4E-11
994	Z57139	<i>H.sapiens</i> CpG island DNA genomic MseI fragment, clone 165d10, forward read cpg165d10.ft1a	0.4
995	AB012917	<i>Homo sapiens</i> mRNA for serine protease (TLSP), complete cds	0
996	AF045742	<i>Xenopus laevis</i> Smad7 mRNA, complete cds	0.38
997	M72411	Human MHC class II HLA-DQA1 gene (DR4,DR4), flanking region and alu repeat.	4E-21
998	J03612	<i>P.yoelii</i> merozoite surface antigen gene, 3' end.	0.13
999	AB007957	<i>Homo sapiens</i> mRNA, chromosome 1 specific transcript KIAA0488	0
1000	AF034265	<i>Gracilaria chilensis</i> 18S ribosomal RNA gene, partial sequence; internal transcribed spacer 1, 5.8S ribosomal RNA gene and internal transcribed spacer 2, complete sequence; and 25S ribosomal RNA gene, partial sequence	0.62
1001	AL080168.1	<i>Homo sapiens</i> mRNA; cDNA DKFZp434C151 (from clone DKFZp434C151)	0
1002	AF121948.1	<i>Homo sapiens</i> telomerase reverse transcriptase	0.001
1003	AF063668.1	<i>Mus musculus</i> type XIII collagen (col13a1) gene, exon 3	2.1
1004	NM_003630.1	<i>Homo sapiens</i> peroxisomal biogenesis factor 3 mRNA for Pex3 protein	0
1005	M35543	Human GTP-binding protein (G25K) mRNA, complete cds.	0.077
1006	U68216	<i>Carica papaya</i> ACC synthase mRNA, complete cds	4
1007	AF133913.1	<i>Mus musculus</i> ARL-6 interacting protein-6	6E-82
1008	NM_000211.1	<i>Homo sapiens</i> integrin beta chain, beta 2 leukocyte adhesion protein (LFA-1/Mac-1/p150,95 family) beta subunit mRNA.	0.65
1009	D10044	Tomato aspermy virus (V-TAV) RNA1	0.02
1010	S82740	NPM/ALK=fusion gene {translocation breakpoint}	0.71
1011	U78776	<i>Treponema denticola</i> gufa gene, partial cds, putative flagellar operon flgB, flgC, fliE, fliF, fliG, fliH, fliI and fliJ genes, complete cds, and fdgA gene, partial cds	0.14



**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
1012	AF140549.1	Enterococcus faecium unknown gene	0.51
1013	AF124490.1	Homo sapiens ARF GTPase-activating protein GIT1 mRNA, complete cds	e-176
1014	D10044	Tomato aspermy virus (V-TAV) RNA1	0.02
1015	AF088887	Oryctolagus cuniculus interleukin-10 precursor, mRNA, complete cds	0.62
1016	AF121948.1	Homo sapiens telomerase reverse transcriptase	0.29
1018	U78547	Chlamydomonas reinhardtii PF20 mRNA, complete cds	0.0001
1019	AL080145.1	Homo sapiens mRNA; cDNA DKFZp434P113 (from clone DKFZp434P113)	0
1020	M26198	Bovine ASS mRNA encoding argininosuccinate synthetase, complete cds.	0.24
1021	D87686.1	Homo sapiens mRNA for KIAA0017 protein, complete cds	e-175
1022	X56668	Human DNA for calretinin exon 1	0.16
1023	AB007158	Homo sapiens gene for ribosomal protein S23, partial cds	e-114
1024	X83433	O.sativa mRNA for lipid transfer protein, b21	0.66
1025	D32072	Mouse mRNA for an isoform of TGF-b type II receptor	0.074
1026	D26077	Mouse mRNA for KIF3B protein, complete cds	0.3
1027	X80111	D.melanogaster sap47-1 mRNA	2E-09
1028	NM_003951.1	Homo sapiens solute carrier family 25 member 14 (SLC25A14), nuclear gene encoding mitochondrial product, mRNA >gi 3851539 gb AF078544 AF078544 Homo sapiens brain mitochondrial carrier protein-1 (BMCP1) mRNA, nuclear gene encoding mitochondrial protein, complete cds	0
1029	AF016422	Caenorhabditis elegans cosmid R09E12	0.0007
1030	NM_006354.1	Homo sapiens transcriptional adaptor 2 (ADA2, yeast homolog)-3 like (PCAF histone acetylase complex) sapiens ADA3-like protein mRNA, complete cds	0
1031	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.063
1032	M25702	Human thyroid peroxidase (TPO) gene, exon 2.	0.091
1033	AB018257.1	Homo sapiens mRNA for KIAA0714 protein, partial cds	0
1034	L06898	Actinomyces viscosus sialidase (nanH) gene, complete cds.	0.49
1035	Y07521	Mouse neuroblastoma-Rat glioma hybrid cell line mRNA for a potassium channel protein NGK2	0.12
1036	AF153201.1	Homo sapiens zinc finger protein dp mRNA, complete cds	3E-39
1037	AJ010642	Drosophila melanogaster mRNA for Dof protein, transcript I, partial	1.9

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
1038	AB015633.1	Homo sapiens mRNA for type II membrane protein, complete cds, clone:HP10481	7E-23
1039	U86751	Human nucleolar fibrillar center protein (ASE-1) mRNA, complete cds	0.019
1040	NM_001538.1	Homo sapiens heat shock transcription factor 4 (HSF4) mRNA >gi 1813425 dbj D87673 D87673 Homo sapiens mRNA for heat shock transcription factor 4, complete cds	1E-57
1041	NM_001538.1	Homo sapiens heat shock transcription factor 4 (HSF4) mRNA >gi 1813425 dbj D87673 D87673 Homo sapiens mRNA for heat shock transcription factor 4, complete cds	1E-57
1042	NM_001283.1	Homo sapiens clathrin-associated/assembly/adaptor protein, small 1 Homo sapiens mRNA for sigma1A subunit of AP-1 clathrin adaptor complex, complete cds	0
1043	L08265	Human skeletal muscle chloride channel (HUMCLC) gene, exon 7.	0.075
1044	U79731	Plasmodium berghei extrachromosomal plastid PB-1, ORF470 gene, partial cds, tRNA-Thr, large subunit ribosomal RNA, tRNA-Met, tRNA-Arg, tRNA-Val, tRNA-Arg, tRNA-Leu, tRNA-Asn, tRNA-Ala, and small subunit ribosomal RNA genes...	0.037
1045	X64467	H.sapiens ALAD gene for porphobilinogen synthase	0.019
1046	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.37
1047	AF144573.1	Mesocricetus auratus Mx-interacting protein kinase PKM mRNA, complete cds	2E-18
1048	U79260	Human clone 23745 mRNA, complete cds	7E-26
1049	Z23435	H. sapiens (D1S414) DNA segment containing (CA) repeat; clone AFM179xg5; single read	0.0007
1050	X95439	S.xylosus aroA, ccpA, acuC and acuA genes	0.014
1051	M32676	Human platelet glycoprotein IIIa, intron 10, fragment A.	0.011
1052	AB018284.1	Homo sapiens mRNA for KIAA0741 protein, complete cds	0.0009
1053	AF151843.1	Homo sapiens CGI-85 protein mRNA, complete cds	3E-33
1054	AF132966.1	Homo sapiens CGI-32 protein mRNA, complete cds	0
1055	NM_006466.1	Homo sapiens polymerase (RNA) III (DNA directed) (39kD) (RPC39) mRNA subunit (RPC39) mRNA, complete cds	4E-15
1056	AF086460	Homo sapiens full length insert cDNA clone ZD85A02	e-119
1057	AF036703	Caenorhabditis elegans cosmid T11F8	0.7
1058	AB018344.1	Homo sapiens mRNA for KIAA0801 protein, complete cds	0

**Table 2A: Nearest Neighbor (BlastN vs. Genbank)**

SEQ ID	ACC'N	DESCRIP.	P VALUE
1059	X81058	M.musculus tex261 mRNA	e-119
1060	AL035046.5	Human DNA sequence from clone 321I20 on chromosome 1q32.1-41 Contains GSSs, complete sequence	0.0001
1061	AF157814.1	Homo sapiens cAMP specific phosphodiesterase	0.00000002
1062	NM_002273.1	Homo sapiens keratin 8 (KRT8) mRNA keratin 8	e-120
1063	AF131739	Homo sapiens clone 25189 mRNA sequence, complete cds	0
1064	AL049702.1	Human gene from PAC 433G19, chromosome 1	0
1065	AL080125.1	Homo sapiens mRNA; cDNA DKFZp572P0920 (from clone DKFZp572P0920)	3E-19
1066	NM_003422.1	Homo sapiens zinc finger protein 42	2E-15
1067	Z22175	Caenorhabditis elegans cosmid K01F9, complete sequence [Caenorhabditis elegans]	2
1068	AF039690.1	Homo sapiens antigen NY-CO-8 (NY-CO-8) mRNA, partial cds	1E-37
1069	AL049702.1	Human gene from PAC 433G19, chromosome 1	0
1070	D63850	Mus musculus mRNA for hepatoma-derived growth factor, complete cds, strain:BALB/c	5E-50
1071	AB014603	Homo sapiens mRNA for KIAA0703 protein, complete cds	e-167
1072	NM_006371.1	Homo sapiens cartilage-associated protein sapiens mRNA for cartilage-associated protein (CASP)	0
1073	U91561	Rattus norvegicus pyridoxine 5'-phosphate oxidase mRNA, complete cds	e-136
1074	NM_003429.1	Homo sapiens zinc finger protein 85 (HPF4, HTF1) (ZNF85) mRNA >gi 1017721 gb U35376 HSU35376 Human repressor transcriptional factor (ZNF85) mRNA, complete cds.	2E-51
1075	D63876	Human mRNA for KIAA0154 gene, partial cds	6E-54
1076	AB010059	Homo sapiens RBP56/hTAFII68 gene, exon 3, 4, 5	4E-80
1077	AB002584	Rattus norvegicus mRNA for beta-alanine-pyruvate aminotransferase, complete cds	0.00000002
1078	X85133	H.sapiens RBQ-1 mRNA	0
1079	AF074331.1	Homo sapiens PAPS synthetase-2 (PAPSS2) mRNA, complete cds	e-173

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
7	808943	(X82686) orf4 [bovine adenovirus type 2]	8.30E+00
8	3876268	(Z81067) similar to Zinc finger, C3HC4 type (RING finger) [Caenorhabditis elegans]	8.10E+00
9	2132973	probable membrane protein YPL058c - yeast	4.50E+00
11	2746799	(AF040643) No definition line found [Caenorhabditis elegans]	2.40E-01
12	1086865	(U41272) Similar to human leukocyte surface protein	1.80E-01
13	4680717	(AF132973) CGI-39 protein [Homo sapiens]	1.00E-07
14	5052588	(AF145649) BcDNA.GH08388	4.00E-09
15	2293303	(AF008220) YttA [Bacillus subtilis]	5.90E-02
16	3378132	(AF071502) brahma associated protein 155 kDa [Drosophila melanogaster]	4.20E-01
17	2224605	(AB002330) KIAA0332 [Homo sapiens]	7.30E-01
18	1439625	(U64598) weakly similar to S. cerevisiae PTM1 precursor	1.30E+00
19	4758718	mitotic kinesin-like protein 1 PROTEIN-1 >gi 284312 pir  S28262 kinesin-related protein MKLP-1 - human >gi 34672 emb CAA47628  (X67155) mitotic kinase-like protein-1 [Homo sapiens]	5.60E-01
20	399112	BETA-GALACTOSIDASE (LACTASE)	1.40E-01
26	3785995	(AC005499) unknown protein [Arabidopsis thaliana]	5.90E+00
27	5042442	(AC007789) putative CREB-binding protein [Oryza sativa]	3.50E+00
28	2501404	PUTATIVE ABC TRANSPORTER PERMEASE PROTEIN MJ0087 >gi 2127961 pir  G64310 hemin permease homolog - Methanococcus jannaschii >gi 1590869 (U67466) hemin permease (hemU) [Methanococcus jannaschii]	7.60E+00
29	1706771	5-EXO-ALCOHOL DEHYDROGENASE (FDEH) dehydrogenase [Pseudomonas putida]	6.00E+00
30	5102774	(AJ238893) acyl-CoA thioesterase [Mus musculus]	6.00E-11
31	121896	HISTONE H1.03 >gi 86287 pir  D28456 histone H1.03 - chicken >gi 211832 (M17021) 03 H1 protein [Gallus gallus]	4.80E-01
32	5689493	(AB029001) KIAA1078 protein [Homo sapiens]	1.00E-53
33	4063766	(D87895) chitinase [Emericella nidulans]	1.60E-02
34	4140029	(AB015438) alpha 1 type I collagen [Cynops pyrrhogaster]	2.70E-02
37	1182003	(X87904) putative [Homo sapiens]	2.70E+00
38	1072187	(U40941) coded for by C. elegans cDNA CEESB82F; coded for by C. elegans cDNA CEESB93F [Caenorhabditis elegans]	8.10E+00
39	2832671	(AL021712) hypothetical protein	1.40E+00
40	481043	bat2 protein - human >gi 29375 emb CAA78744	1.30E-01
41	1203952	(U49831) similar to D. melanogaster doublesex protein	4.80E+00

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
42	2708329	(AF038564) atrophin-1 interacting protein 4 [Homo sapiens]	8.20E+00
43	464522	TRANSCRIPTION INITIATION FACTOR IIF, ALPHA SUBUNIT (TFIIF-ALPHA) (TRANSCRIPTION INITIATION FACTOR RAP74) >gi 479869 pir  S35551 transcription factor IIF chain RAP74 - African clawed frog IIF subunit [Xenopus laevis]	3.30E-01
44	2384956	(AF022985) No definition line found [Caenorhabditis elegans]	2.00E-28
46	418745	NADH dehydrogenase (ubiquinone) (EC 1.6.5.3) chain 4 - Crithidia oncopelti mitochondrion (SGC6) subunit 4 [Crithidia oncopelti]	8.40E+00
47	289825	(M81391) thrombin [Gallus gallus]	6.30E+00
48	1352968	HYPOTHETICAL 95.4 KD PROTEIN IN MAD2-RNR2 INTERGENIC REGION >gi 1077804 pir  S56801 hypothetical protein YJL029c - yeast (Saccharomyces cerevisiae) >gi 1008148 emb CAA89320  (Z49304) ORF YJL029c [Saccharomyces cerevisiae]	2.80E+00
49	3878628	(Z93385) predicted using Genefinder; cDNA EST EMBL:D72583 comes from this gene; cDNA EST EMBL:D75500 comes from this gene [Caenorhabditis elegans]	6.00E-03
50	2384956	(AF022985) No definition line found [Caenorhabditis elegans]	3.00E-25
54	5262605	(AL080150) hypothetical protein [Homo sapiens]	2.10E+00
59	4680695	(AF132962) CGI-28 protein [Homo sapiens]	2.40E-01
60	961446	(D63877) KIAA0157 gene product is novel.	1.20E+00
61	3882321	(AB018343) KIAA0800 protein [Homo sapiens]	1.00E-69
62	2864624	(AL021811) putative protein [Arabidopsis thaliana]	1.40E-01
65	1655907	(U65891) protein tyrosine phosphatase CRYP-2 [Gallus gallus]	2.00E+00
66	3983370	(AF102521) olfactory receptor B12 [Mus musculus]	1.80E-01
67	103624	collagen alpha 2 chain - sea urchin 2-alpha collagen precursor (COLL 2-alpha) [Paracentrotus lividus]	1.50E+00
68	3881789	(Z68302) predicted using Genefinder; similar to Pumilio-family RNA binding domains (aka PUM-HD, Pumilio homology domain) (3 domains); cDNA EST EMBL:M89238 comes from this gene; cDNA EST EMBL:D73612 comes from this gene; cDNA ES...	2.50E-01
70	1326281	(U58732) F48D6.2 gene product [Caenorhabditis elegans]	3.40E+00
73	3540219	(D87686) KIAA0017 protein [Homo sapiens]	8.00E-70

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
74	2315742	(AF016681) contains similarity to a sperm coat polysaccharide domain [Caenorhabditis elegans]	1.60E+00
78	5453948	protein phosphatase 1, regulatory subunit 6 >gi 3805797 emb CAA77081  (Y18206) serine-threonine specific protein phosphatase [Homo sapiens]	6.50E+00
80	1161051	(L39922) efflux protein [Mycobacterium tuberculosis]	8.20E+00
81	4505279	5-methyltetrahydrofolate-homocysteine methyltransferase reductase >gi 2981303 (AF025794) methionine synthase reductase [Homo sapiens]	2.80E+00
82	1722711	MAJOR CAPSID PROTEIN L1 >gi 1020201 type 24]	1.20E+00
84	5453379	(AF155124) bacterial-induced peroxidase precursor [Gossypium hirsutum]	6.30E+00
85	3329139	(AE001339) ABC Transporter Membrane Protein [Chlamydia trachomatis]	1.20E+00
86	222416	(D10453) coat protein [Pea seed-borne mosaic virus]	4.50E+00
87	1778160	(U67304) 70 kDa S6 kinase [Drosophila melanogaster]	2.60E+00
88	1943947	(U90126) ABC transporter [Bos taurus]	2.60E+00
89	3851586	(AF092564) chromosome-associated protein-C [Homo sapiens]	2.00E-03
91	119711	EXTENSIN PRECURSOR carota] >gi 224686 prf  1111211A extensin [Daucus carota]	2.00E-03
93	728838	!!!! ALU SUBFAMILY SX WARNING ENTRY	6.10E-01
95	4406632	(AF131801) Unknown [Homo sapiens]	2.00E-04
97	4585699	(AJ228139) LEKTI precursor [Homo sapiens]	9.00E-52
99	3249026	(AF070067) unknown [Escherichia coli]	7.70E-01
100	4210358	(AL031073) dJ142F18.1 (similar to melanoma-associated antigen) [Homo sapiens]	1.70E-02
101	2137074	ribosomal transcription factor UBF2 - Chinese hamster	7.00E-06
103	3327062	(AB014524) KIAA0624 protein [Homo sapiens]	1.00E-37
106	3328339	(AF075241) prepro-orexin [Sus scrofa]	4.80E+00
108	1055163	(U40029) Contains similarity to Pfam domain: PF01060 (Worm_family_2), Score=203.8, E-value=8.6e-58, N=1 [Caenorhabditis elegans]	7.90E+00

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
109	113333	METHYLPHOSPHOTRIESTER-DNA ALKYLTRANSFERASE >gi 279475 pir  XUBSMM methylphosphotriester-DNA methyltransferase (EC 2.1.1.-) adaA [Bacillus subtilis] >gi 2632448 emb CAB11957  transcriptional regulator (AraC/XylS family) [Bacillus subtilis] >gi 2632466 emb CAB11974  (Z99105) methylphosphotriester-DNA alkyltransferase and transcriptional regulator (AraC/XylS family) [Bacillus subtilis] >gi 3599599 dbj BAA33074  (AB006424) METHYLPHOSPHOTRIESTER-DNA ALKYLTRANSFERASE [Bacillus subtilis]	7.80E+00
110	2143767	glycoprotein - rat >gi 986943 (L08134) glycoprotein [Rattus norvegicus] norvegicus]	2.00E-02
112	2905979	(AF015678) virulence determinant [African swine fever virus]	2.00E+00
113	4867999	(AF078164) Ku70-binding protein	4.00E-60
114	3820909	(AJ010642) Dof protein [Drosophila melanogaster]	1.90E+00
115	2291155	(AF016418) No definition line found [Caenorhabditis elegans]	8.10E+00
120	632500	(U17394) polyadenylation factor 64 kDa subunit [Xenopus laevis]	3.60E+00
121	87792	Ig gamma-3 chain C region (allotype G3m(b)) - human >gi 577056 emb CAA27268  (X03604) C gamma 3 [Homo sapiens]	1.60E+00
122	3043572	(AB011096) KIAA0524 protein [Homo sapiens]	5.00E-04
125	1729859	TUBULIN GAMMA CHAIN gamma tubulin-like protein [Saccharomyces cerevisiae]	3.50E+00
126	2340169	(AF015783) telomerase reverse transcriptase 1	2.70E+00
127	2131446	hypothetical protein YDR362c - yeast	7.90E-02
130	1616770	(U70731) putative poly(A)-binding protein FabM	1.10E+00
131	3287688	(AC003979) Contains similarity to ycf37 gene product gb 1001425 from Synechocystis sp. genome gb D63999. ESTs gb T43026, gb R64902, gb Z18169 and gb N37374 come from this gene. [Arabidopsis thaliana]	8.00E-03
134	1131444	(U42580) PBCV-1 glucosamine synthetase	1.70E+00
135	134952	STREPTOTHRICIN ACETYLTRANSFERASE streptothricin acetyl-transferase (AA 1-174) streptothricin-acetyl-transferase (AA 1-174) acetyltransferase [Transposon Tn7] >gi 2708491 (U84739) streptothricin resistance protein [synthetic construct] acetyltransferase 3' [Cloning vector pSB11]	5.40E-01

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
136	3452684	(D87054) 2-heptaprenyl-1,4-naphthoquinone methyltransferase [Bacillus stearothermophilus]	4.00E-03
137	5360129	(AF155117) NY-REN-62 antigen	8.00E-53
143	1363109	collagen alpha 1(XVIII) chain precursor long form - mouse (fragment) >gi 618430 (U11637) alpha-1 type XVIII collagen precursor [Mus musculus]	3.70E+00
145	113671	!!!! ALU CLASS F WARNING ENTRY !!!!	1.40E+00
146	3874135	(Z54342) similar to acid phosphatase elegans]	7.00E-22
148	1279390	(X97329) HER-1 protein [Danio rerio]	7.50E+00
149	4557639	orexin receptor 2 >gi 2897128 receptor [Homo sapiens]	6.20E+00
150	4262630	(AF125963) No definition line found	3.20E+00
152	102129	H <sup>+</sup> -transporting ATP synthase (EC 3.6.1.34) protein 6 - Trypanosoma brucei mitochondrion (SGC6)	2.80E+00
156	996018	(X91637) BRG1 protein [Gallus gallus]	5.70E+00
157	3158498	(AF067622) Contains similarity to Pfam domain: PF00628 (PHD), Score=36.7, E-value=1.7e-07, N=2	2.70E-02
158	1117913	(U40223) uridine nucleotide receptor [Homo sapiens]	2.70E+00
162	5430752	(AC007504) Hypothetical Protein	3.80E-02
167	226120	vicilin gene B [Saguinus oedipus]	8.30E+00
169	4557335	aspartoacylase (aminoacylase 2) aspartoacylase - human >gi 455834 bbs 140585 (S67156) aspartoacylase, ASP [human, kidney, Peptide, 313 aa]	7.30E+00
170	5031129	(AF082859) lungkine [Mus musculus]	8.60E+00
173	4678899	(AL049707) putative large glycine/alanine rich protein [Streptomyces coelicolor]	2.10E-01
174	728831	!!!! ALU SUBFAMILY J WARNING ENTRY	2.00E-02
175	3004981	(AF039652) ribonuclease H type II [Homo sapiens]	2.00E-27
177	2911366	(AF041047) NADPH HC toxin reductase [Zea mays]	9.60E-02
178	2217964	(Z50798) p52 [Gallus gallus]	1.00E-12
179	3873707	(Z73102) Similarity to B.subtilis DNAJ protein (SW:DNAJ_BACSU); cDNA EST yk437a1.5 comes from this gene [Caenorhabditis elegans]	3.00E-19
180	3043658	(AB011139) KIAA0567 protein [Homo sapiens]	2.00E-03
182	5689451	(AB028980) KIAA1057 protein [Homo sapiens]	7.00E-10
183	728831	!!!! ALU SUBFAMILY J WARNING ENTRY	5.00E-03
186	2588623	(AC003083) mitochondrial carrier protein-like; similar to Q09461 (PID:g2497990) [Homo sapiens]	3.00E-69
187	1669601	(D88747) AR401 [Arabidopsis thaliana]	2.00E-20
190	126296	LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein [Nycticebus coucang]	3.20E-01



**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
191	3294180	(Z99129) dJ425C14.2 (Placental protein DIFF33 LIKE) [Homo sapiens]	4.00E-20
192	5030439	(AC007766) R26610_1 [Homo sapiens]	7.00E-56
193	4507375	tubulin-specific chaperone e	7.00E-05
195	1698455	(U49974) mariner transposase [Homo sapiens]	2.00E-05
196	1709285	PUTATIVE PYRUVATE-FLAVODOXIN OXIDOREDUCTASE >gi 1006618 dbj BAA10774  (D64005) pyruvate oxidoreductase [Synechocystis sp.]	8.00E+00
197	3878584	(Z77667) cDNA EST EMBL:C08125 comes from this gene; cDNA EST EMBL:C09753 comes from this gene	2.00E-04
198	1658503	(U75467) Atu [Drosophila melanogaster]	2.00E-44
199	2655422	(AF035530) CDC37 [Gallus gallus]	2.00E-09
200	4557817	3-oxoacid CoA transferase precursor; succinyl-CoA:3- ketoacid-CoA transferase precursor >gi 2492998 sp P55809 SCOT_HUMAN SUCCINYL-COA:3- KETOACID-COENZYME A TRANSFERASE PRECURSOR transferase precursor [Homo sapiens]	3.20E+00
201	4506403	UNKNOWN >gi 4063890 (AF095448) putative G protein- coupled receptor [Homo sapiens]	4.00E-35
202	3880146	(Z68319) Similarity to Human hnRNP F protein (PIR Acc. No. S43484); cDNA EST EMBL:D34218 comes from this gene; cDNA EST EMBL:D37248 comes from this gene; cDNA EST EMBL:D71817 comes from this gene; cDNA EST EMBL:D74531 comes fro... hnRNP F protein (PIR Acc. No. S43484); cDNA EST EMBL:D34218 comes from this gene; cDNA EST EMBL:D37248 comes from this gene; cDNA EST EMBL:D71817 comes from this gene; cDNA EST EMBL:D74531 comes fro...	1.00E-01
203	3877198	(Z69903) predicted using Genefinder; Similarity to Rat casein kinase I (SW:KC1D_RAT); cDNA EST EMBL:D65322 comes from this gene; cDNA EST EMBL:D68704 comes from this gene; cDNA EST yk475f2.5 comes from this gene [Caenorhabditis...]	1.20E+00
204	987050	(X65335) lacZ [Cloning vector pSV-beta-Galactosidase Control]	4.00E-06
205	1438677	(U62376) envelope protein [Simian immunodeficiency virus]	3.60E+00
206	2193870	(D84391) reverse transcriptase [Mus musculus]	6.00E-06
207	5032069	spliceosome-associated protein ASSOCIATED PROTEIN 49 (SAP 49) (SF3B53) SAP-49 - human >gi 556217 (L35013) spliceosomal protein	2.20E+00

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
209	5032069	spliceosome-associated protein ASSOCIATED PROTEIN 49 (SAP 49) (SF3B53) SAP-49 - human >gi 556217 (L35013) spliceosomal protein	2.10E+00
210	729264	CYTOCHROME B >gi 625356 pir  S43269 ubiquinol--cytochrome-c reductase (EC 1.10.2.2) cytochrome b - humpback whale mitochondrion (SGC1)	4.60E+00
211	2088713	(AF003139) Similar to cuticular collagen [Caenorhabditis elegans]	4.20E-01
212	2276366	(Z97992) putative glucan synthase	8.40E+00
213	4589684	(AB023234) KIAA1017 protein [Homo sapiens]	2.00E-65
214	4504739	ITBA1 protein	1.00E-10
217	1703364	TRANSCRIPTIONAL REGULATORY PROTEIN ARAB >gi 995682 emb CAA62739  (X91393) abaB	7.50E-01
218	2769595	(Y16135) 5HT2B receptor [Canis familiaris]	8.20E+00
219	3002527	(AF010144) neuronal thread protein AD7c-NTP [Homo sapiens]	5.00E-05
221	1463014	(U08794) envelope glycoprotein [Human immunodeficiency virus type 1]	7.70E+00
222	1709230	NBL4 PROTEIN >gi 543191 pir  JU0188 band 4.1 superfamily member protein - mouse	3.00E-23
223	120223	FK506-BINDING PROTEIN (FKBP-12) FK506-binding protein - mouse >gi 50971 emb CAA42762  musculus]	1.00E-19
224	987050	(X65335) lacZ [Cloning vector pSV-beta-Galactosidase Control]	2.00E-15
225	2558516	(AJ001119) Rab5 GDP/GTP exchange factor, Rabex5 [Bos taurus]	2.00E-36
226	2558501	(D63850) hepatoma-derived growth factor	7.00E-30
227	5410326	(AF106680) RNA helicase [Homo sapiens]	2.00E-45
228	631772	TEG-261 protein - mouse	5.00E-48
229	3851492	(AF041853) kinesin family member protein KIF3A [Homo sapiens]	3.00E-56
231	4504983	lectin, galactoside-binding, soluble, 3 (galectin 3) (NOTE: redefinition of symbol) BINDING PROTEIN 35) (CBP 35) (LAMININ-BINDING PROTEIN) galactoside-binding - human >gi 179531 (M57710) IgE-binding protein [Homo sapiens] >gi 186922 (M36682) laminin-binding protein [Homo sapiens]	6.00E+00
240	3873717	(Z81453) predicted using Genefinder	3.70E+00
241	3413884	(AB007930) KIAA0461 peroteine [Homo sapiens]	3E-48
242	1834503	(Z72496) mucin MUC5B [Homo sapiens]	4.50E-01

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
243	131442	PRESTALK PROTEIN PRECURSOR mold (Dictyostelium discoideum)	1.2
244	3834629	(AF094519) diaphanous-related formin; p134 mDia2 [Mus musculus]	5E-54
245	2996650	(AC004493) KIAA0324 [Homo sapiens]	0.05
246	731604	HYPOTHETICAL 130.0 KD PROTEIN IN SNF6-SPO11 INTERGENIC REGION >gi 626572 pir  S46837 hypothetical protein YHL023c - yeast (Saccharomyces cerevisiae) >gi 2289893 (U11582) No definition line found [Saccharomyces cerevisiae]	0.036
247	5670007	(AF156102) ELL complex EAP30 subunit	5.00E-66
248	1122431	(X92968) protein SIC [Streptococcus pyogenes]	0.001
249	462022	ER LUMEN PROTEIN RETAINING RECEPTOR falciparum >gi 398385 emb CAA81128  (Z26043) ERD2	8.80E+00
250	3850153	(AL033396) cytochrome P450 [Candida albicans]	8.8
251	2315228	(Z98260) hypothetical protein Rv1227c	1.00E+00
252	3800952	(AF100657) Contains similarity to Pfam domain: PF00614 (PLDc), Score=13.8, E-value=0.2, N=1	5.00E-24
253	4507145	UNKNOWN >gi 3873216 (AF065485) sorting nexin 4 [Homo sapiens]	3.00E-51
258	5410355	(AF125392) insulin induced protein 2 [Homo sapiens]	2.10E+00
261	2905647	(AF045245) D-arabinitol kinase [Klebsiella pneumoniae]	6.5
262	4928673	(AF136343) Cul-1 [Drosophila melanogaster]	6.50E+00
263	3876644	(Z81526) predicted using Genefinder; cDNA EST EMBL:D36935 comes from this gene; cDNA EST EMBL:D33960 comes from this gene; cDNA EST EMBL:C12255 comes from this gene; cDNA EST EMBL:C10859 comes from this gene; cDNA EST EMBL:C1...	6.20E+00
264	1808621	(X94355) D18L [Cowpox virus]	3.70E+00
265	628784	plasmid copy number control protein - Escherichia coli >gi 473802 dbj BAA05591  (D26562) coli]	2.90E+00
266	4505727	peroxisomal biogenesis factor 3 PROTEIN PEX3 (PEROXIN-3) >gi 3336882 emb CAA04879  sapiens] >gi 4218426 emb CAA08904  (AJ009866) Pex3p	4.00E-59
268	4322053	(AF071242) homeobox protein [Danio rerio]	3.50E+00
273	5105878	(AP000063) 194aa long hypothetical protein [Aeropyrum permix]	6.50E+00

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
274	3877495	(Z48583) cDNA EST EMBL:T00483 comes from this gene; cDNA EST EMBL:D64526 comes from this gene; cDNA EST EMBL:D65147 comes from this gene; cDNA EST EMBL:D68484 comes from this gene; cDNA EST EMBL:D67548 comes from this gene; c... >gi 3879229 emb CAA88749  EST EMBL:D64526 comes from this gene; cDNA EST EMBL:D65147 comes from this gene; cDNA EST EMBL:D68484 comes from this gene; cDNA EST EMBL:D67548 comes from this gene; cDN...	6.7
275	3322592	(AE001211) T. pallidum predicted coding region TP0311	1.90E+00
276	1176495	HYPOTHETICAL 79.4 KD PROTEIN IN PRP16-SRP40 INTERGENIC REGION >gi 486577 emb CAA82169	2.1
277	4691726	(AF124490) ARF GTPase-activating protein GIT1 [Homo sapiens]	3E-68
278	3702844	(AF069051) pituitary tumor transforming gene protein	5.80E+00
279	3882163	(AB018264) KIAA0721 protein [Homo sapiens]	6.00E-59
280	1072187	(U40941) coded for by C. elegans cDNA CEESB82F; coded for by C. elegans cDNA CEESE93F [Caenorhabditis elegans]	7.4
282	3322397	(AE001198) T. pallidum predicted coding region TP0130	1.80E+00
283	3417412	(AL031261) putative superoxide dismutase	2.9
284	2245121	(Z97343) hypothetical protein	0.45
285	2924311	(AJ000882) steroid receptor coactivator 1e	8.6
286	3323285	(AE001264) ABC transporter, ATP-binding protein	8.5
287	4981435	(AE001755) hypothetical protein	2.9
288	4826818	LIM and senescent cell antigen-like domains 1 >gi 1346721 sp P48059 PINC_HUMAN PINCH PROTEIN (PARTICULARY INTERESTING NEW CYS-HIS PROTEIN) >gi 631281 pir  JC2324 LIM protein - human	6.5
291	104506	troponin T, fast skeletal muscle, embryonic alpha (clone 501) - Japanese quail >gi 213628 (M26599) troponin T [Coturnix coturnix]	4.8
292	2736462	(AF039048) similar to cdc25-like M-phase inducer phosphatases [Caenorhabditis elegans]	2.8
293	1708966	SPERM MITOCHONDRIAL CAPSULE SELENOPROTEIN (MCS)	0.74
294	4914378	(AC007584) hypothetical protein [Arabidopsis thaliana]	3E-10
295	5524931	(AL096842) hypothetical protein [Homo sapiens]	3E-64

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
296	128155	LOW-AFFINITY NERVE GROWTH FACTOR RECEPTOR PRECURSOR (NGF RECEPTOR) (GP80-LNGFR) (P75 ICD) affinity - chicken	0.00001
298	4205113	(AF000520) cell wall invertase [ <i>Fragaria x ananassa</i> ]	2.7
299	3702106	(AL031765) MSK (EC 2.7.1.-) (HRT-20) (MYOCARDIAL SNF1-LIKE KINAS...	0.79
300	4325123	(AF119361) unknown [ <i>Frankia</i> sp. EuIK1]	2.8
301	417737	MITOCHONDRIAL RIBOSOMAL PROTEIN S14 polymorpha=liverwort, Peptide Mitochondrial, 99 aa]	3.6
302	2289030	(U53564) N-terminal region of the protein [ <i>Mus musculus</i> ]	2.8
303	2318003	(U97553) unknown [murine herpesvirus 68]	0.037
304	3123176	HYPOTHETICAL 43.1 KD TRP-ASP REPEATS CONTAINING PROTEIN K04G11.4 IN CHROMOSOME X Genefinder; Similarity to <i>C.elegans</i> Guanine nucleotide binding protein (WP:C14B1.4) [ <i>Caenorhabditis elegans</i> ]	6E-09
305	5106956	(AF113615) FH1/FH2 domain-containing protein FHOS [ <i>Homo sapiens</i> ]	1E-51
311	5059323	(AF151522) hairy and enhancer of split related-1 [ <i>Homo sapiens</i> ]	0.31
312	728831	!!!! ALU SUBFAMILY J WARNING ENTRY	4.7
313	4226073	(AF125443) contains similarity to <i>S. pombe</i> phosphatidyl synthase (GB:Z28295) [ <i>Caenorhabditis elegans</i> ]	2E-23
317	2822320	(AF016485) ORF H0532 [ <i>Halobacterium</i> sp. NRC-1] >gi 2822445 gb AAC82951.1  (AF016485) ORF H1831	7.9
318	2983553	(AE000721) major facilitator family transporter [ <i>Aquifex aeolicus</i> ]	3.5
319	4689225	(AF118379) gamma-tubulin ring protein Dgrip84 [ <i>Drosophila melanogaster</i> ]	0.23
322	1326337	(U58746) coded for by <i>C. elegans</i> cDNA yk3b11.5; coded for by <i>C. elegans</i> cDNA yk13g1.5; coded for by <i>C. elegans</i> cDNA yk3b11.3; coded for by <i>C. elegans</i> cDNA CEESR37F; coded for by <i>C. elegans</i> cDNA yk13g1.3; Similar to phospholipase. [ <i>Caenorhab...</i>	4.5
323	2708738	(AC003952) hypothetical protein [ <i>Arabidopsis thaliana</i> ]	6E-10
326	4929629	(AF151838) CGI-80 protein [ <i>Homo sapiens</i> ]	8.1
327	4050073	(AF103731) putative glycolipid transfer protein [ <i>Homo sapiens</i> ]	2E-38
328	1905892	(L39835) Na/Ca exchange protein [ <i>Drosophila melanogaster</i> ]	0.14
329	4972120	(AL078579) putative protein [ <i>Arabidopsis thaliana</i> ]	2E-08

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
330	4884202	(AL049953) hypothetical protein [Homo sapiens]	1E-39
332	2981631	(AB012223) ORF2 [Canis familiaris]	0.098
333	1723611	HYPOTHETICAL TRANSCRIPTIONAL REGULATOR IN GLVC-LIPB INTERGENIC REGION subtilis] >gi 2633149 emb CAB12654  (Z99108) similar to transcriptional regulator (AraC/XylS family) [Bacillus subtilis]	9.9
334	3881873	(Z83246) predicted using Genefinder; cDNA EST EMBL:M79771 comes from this gene [Caenorhabditis elegans]	1.3
335	3641352	(AF091234) putative transcription factor [Mus musculus]	2E-43
336	3874427	(Z78416) predicted using Genefinder; Similarity to S.pombe RAD18 gene (TR:E198069); cDNA EST CEESX52R comes from this gene; cDNA EST EMBL:D32785 comes from this gene; cDNA EST EMBL:D35528 comes from this gene; cDNA EST EMBL:D37...	0.0000006
341	1492037	(U60315) MC094R [Mollusum contagiosum virus subtype 1]	8.5
342	3201625	(AC004669) hypothetical protein [Arabidopsis thaliana]	6.2
343	5103944	(AP000059) 216aa long hypothetical protein [Aeropyrum pernix]	3.8
344	139140	RNA REPLICATION PROTEIN (165 KD PROTEIN) (ORF 1) [CONTAINS: RNA-DIRECTED RNA POLYMERASE RNA-replicating protein [Potato virus X] >gi 309911	5.9
345	1085126	juvenile hormone esterase-related protein - cabbage looper	4.9
346	1613846	(U71440) polyprotein [Rice tungro spherical virus]	0.73
354	60900	(X03614) alternative form of op-6 (aa 1-1980) [Human parainfluenza virus 1]	0.35
355	3287370	(AC002397) B [Mus musculus]	0.003
356	2622601	(AE000909) serine/threonine protein kinase related protein [Methanobacterium thermoautotrophicum]	2E-10
358	130489	STRUCTURAL POLYPROTEIN [CONTAINS: MAJOR STRUCTURAL PROTEIN VP2; NONSTRUCTURAL PROTEIN VP4; MINOR STRUCTURAL PROTEIN VP3] >gi 75451 pir GNXSOH genome polyprotein - infectious bursal disease virus structural polyprotein [Infectious bursal disease virus]	9.7
359	2996337	(AF053947) CobT homolog [Yersinia pestis]	0.86
360	3644048	(AF091395) Trio isoform [Homo sapiens]	7.1
363	3845280	(AE001418) hypothetical protein [Plasmodium falciparum]	0.8

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
364	1208844	(U49956) coded for by <i>C. elegans</i> cDNA yk57d5.5; coded for by <i>C. elegans</i> cDNA cm20e2; coded for by <i>C. elegans</i> cDNA cm06f2 [ <i>Caenorhabditis elegans</i> ]	4
366	3193245	(AF068709) No definition line found [ <i>Caenorhabditis elegans</i> ]	2.9
368	5262568	(AL080129) hypothetical protein [ <i>Homo sapiens</i> ]	1E-35
371	3261730	(Z92774) <i>nhoA</i> [ <i>Mycobacterium tuberculosis</i> ]	3.5
373	2131482	hypothetical protein YDR426c - yeast	7.7
374	2146218	hypothetical protein E30_orf352 - <i>Mycoplasma pneumoniae</i> (SGC3) (ATCC 29342) >gi 1673872 (AE000021) <i>Mycoplasma pneumoniae</i> , E30_orf352 Protein [ <i>Mycoplasma pneumoniae</i> ]	7.8
375	2911866	(AF047660) contains similarity to steroid/thyroid/retinoic nuclear hormone receptors; contains similarity to C4-type zinc fingers	2.7
377	3878117	(Z49068) mitochondrial carrier protein	5.7
378	2804500	(AF043706) contains similarity to granulins [ <i>Caenorhabditis elegans</i> ]	0.18
380	4154882	(AE001471) ATP-DEPENDENT ZINC METALLOPEPTIDASE	4.7
381	2047346	(AF000198) Similar to cuticular collagen [ <i>Caenorhabditis elegans</i> ]	0.31
382	135454	TUBULIN BETA-2 CHAIN <i>Emericella nidulans</i> >gi 168107 (M17520) beta-tubulin beta [ <i>Emericella nidulans</i> ]	1.5
387	3256691	(AP000001) 128aa long hypothetical protein [ <i>Pyrococcus horikoshii</i> ]	3.6
388	4033606	(AB008227) Extensin [ <i>Adiantum capillus-veneris</i> ]	0.33
391	3036835	(AJ003243) bradykinin B2 receptor [ <i>Cavia porcellus</i> ]	7.9
392	5306171	(AF160864) NADH dehydrogenase subunit 4 [ <i>Tetrahymena pyriformis</i> ]	1.6
393	2131472	hypothetical protein YDR409w - yeast CAI: 0.12 [ <i>Saccharomyces cerevisiae</i> ]	0.43
394	418745	NADH dehydrogenase (ubiquinone) (EC 1.6.5.3) chain 4 - <i>Crithidia oncopelti</i> mitochondrion (SGC6) subunit 4 [ <i>Crithidia oncopelti</i> ]	3.3
398	422408	cyclodiene insecticide resistance protein - yellow fever mosquito >gi 881590 (U28803) GABA receptor subunit [ <i>Aedes aegypti</i> ]	1.1
400	4050089	(AF109907) hypothetical protein [ <i>Homo sapiens</i> ]	1.6

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
401	3875400	(Z73906) cDNA EST EMBL:M88866 comes from this gene [Caenorhabditis elegans]	2.1
402	3874821	(Z35641) cDNA EST yk273d8.5 comes from this gene [Caenorhabditis elegans]	9E-10
404	4493761	(AL034368) predicted using hexExon; L779.2, Hypothetical protein, len: 4125 aa [Leishmania major]	6.6
407	2598627	(AJ000870) histidine kinase [Streptococcus gordonii]	6
408	2842531	(AB004291) gamma-subunit of enolase	3.5
409	728836	!!!! ALU SUBFAMILY SP WARNING ENTRY	0.37
415	728832	!!!! ALU SUBFAMILY SB WARNING ENTRY	0.95
416	2088675	(AF003131) C. elegans UNC-89 (GB:U33058) (NID:g1160355)	1.2
417	102189	myosin I, high molecular weight - Acanthamoeba sp	0.0005
418	2072961	(U93568) putative p150 [Homo sapiens]	0.008
422	1705706	P-TYPE CALCIUM CHANNEL ALPHA-1 SUBUNIT (RBA-I) >gi 111447 pir  A41098 calcium channel protein alpha-1 chain isoform A - rat >gi 203111 norvegicus]	3.6
424	1781316	(Y10290) formamidopyrimidine-DNA glycosylase [Synechococcus elongatus]	4.9
425	1183033	(D63821) polyprotein [Hepatitis C virus]	7.5
426	3347920	(AF075261) orphan transporter [Mus musculus]	2.9
428	1333929	(X66285) HC1 ORF [Mus musculus]	0.086
429	3121994	DNAJ PROTEIN japonicum]	1.2
431	5689523	(AB029016) KIAA1093 protein [Homo sapiens]	0.001
432	4887240	(AF064564) WSB1 protein [Fugu rubripes] rubripes]	0.013
433	130553	RNA REPLICASE POLYPROTEIN 2.7.7.48) - Ononis yellow mosaic virus >gi 332574 virus]	0.3
435	897917	(U28249) 11kD protein [Homo sapiens]	0.25
441	2072958	(U93567) putative p150 [Homo sapiens]	0.002
444	728831	!!!! ALU SUBFAMILY J WARNING ENTRY	0.008
446	4210496	(U61384) GAS41 protein [Homo sapiens]	9E-59
447	1002672	(U30261) G protein beta subunit-like; Method: conceptual translation supplied by author [Schistosoma mansoni]	1E-31
448	4680703	(AF132966) CGI-32 protein [Homo sapiens]	6E-67
450	1255371	(U53147) coded for by C. elegans cDNA yk34a9.5; coded for by C. elegans cDNA yk34a9.3; Similar to guanylate kinase. [Caenorhabditis elegans]	4E-23
451	1078718	reverse transcriptase - Trypanosoma cruzi transcriptase [Trypanosoma cruzi]	0.91
452	728832	!!!! ALU SUBFAMILY SB WARNING ENTRY	0.082
453	106323	hypothetical protein (L1H 5' region) - human	0.58



**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
454	1345693	CHLORAMPHENICOL ACETYLTRANSFERASE acetyltransferase, CAT [Vibrio anguillarum=pJA7324, Peptide Plasmid, 216 aa] [Vibrio anguillarum]	8.4
455	3413884	(AB007930) KIAA0461 peroteine [Homo sapiens]	8E-78
456	2072972	(U93572) putative p150 [Homo sapiens]	0.003
458	1504042	(D86984) similar to yeast adenylate cyclase (S56776) [Homo sapiens]	7E-10
460	729774	HEAT SHOCK FACTOR PROTEIN HSF30 STRESS TRANSCRIPTION FACTOR) >gi 100265 pir  S25480 heat shock transcription factor HSF30 - Peruvian tomato transcription factor HSF30 [Lycopersicon peruvianum]	8.1
462	728831	!!!! ALU SUBFAMILY J WARNING ENTRY	0.006
464	1351218	TESTIN 2 (TES2) [CONTAINS: TESTIN 1 (TES1)] >gi 2137810 pir  I48842 testin - mouse	7.8
465	4160198	(AL008583) dJ327J16.3 (novel CHROMObox family protein) [Homo sapiens]	1E-20
466	4454690	(AF070657) glutathione S-transferase subunit 13 homolog [Homo sapiens]	2E-25
467	3873871	(Z81030) similar to citrate lyase beta chain; cDNA EST yk302b4.5 comes from this gene	3E-41
468	2690136	(AE000788) conserved hypothetical protein [Borrelia burgdorferi]	4.7
469	3327192	(AB014589) KIAA0689 protein [Homo sapiens]	0.000006
470	121654	GASTRULA-SPECIFIC PROTEIN 17 African clawed frog >gi 64733 emb CAA28842  (X05215) GS17 gene product (AA 1 - 147) [Xenopus laevis]	0.9
471	2506774	KERATIN, TYPE II CYTOSKELETAL 8	2E-42
472	4768838	(AF116910) putative ribonuclease III [Homo sapiens]	6E-74
473	4406551	(AF131739) Unknown [Homo sapiens]	2E-54
474	4454704	(AF070664) HSPC008 [Homo sapiens] protein [Homo sapiens]	3E-39
475	4678836	(AL049701) hypothetical protein [Homo sapiens]	6E-43
477	3025319	ZINC FINGER PROTEIN 195 >gi 2384653 sapiens]	3E-11
479	3327098	(AB014542) KIAA0642 protein [Homo sapiens]	5E-20
480	2506062	(D85196) cut4+ [Schizosaccharomyces pombe]	4.7
481	220579	(D00570) open reading frame (196 AA) [Mus musculus]	1.7
482	4758756	nucleosome assembly protein 1-like 1 >gi 1709337 sp P55209 NPL1_HUMAN NUCLEOSOME ASSEMBLY PROTEIN 1-LIKE 1 (NAP-1 RELATED PROTEIN)	2E-26
484	1778432	(U79660) Treacher Collins syndrome [Homo sapiens]	2.9

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
485	4507455	transferrin receptor 2 sapiens]	3E-35
488	1184790	(U46068) von Ebner minor salivary gland protein [Mus musculus]	0.065
489	3876562	(Z81074) Similarity to Soybean 3-methylcrotonyl-CoA carboxylase (TR:Q42777); cDNA EST EMBL:M75819 comes from this gene; cDNA EST EMBL:M89099 comes from this gene; cDNA EST EMBL:D32737 comes from this gene; cDNA EST EMBL:D32763 ...	7E-41
490	746552	(U23523) F53A9.1 gene product [Caenorhabditis elegans]	6.7
491	2981631	(AB012223) ORF2 [Canis familiaris]	0.037
492	1401210	(U58510) putative RNA polymerase II subunit	4.8
493	3170180	(AF039690) antigen NY-CO-8 [Homo sapiens]	0.26
496	1778838	(U83113) INS-1 winged-helix homolog [Homo sapiens]	2.8
497	549779	PUTATIVE MYCOCEROSYL TRANSFERASE IN MAS 5'REGION >gi 322248 pir  A44110 orf I 5' of mas - Mycobacterium tuberculosis >gi 149979 (M95808) ORF	8.2
498	3877493	(Z48583) similar to ATPases associated with various cellular activities (AAA); cDNA EST EMBL:Z14623 comes from this gene; cDNA EST EMBL:D75090 comes from this gene; cDNA EST EMBL:D72255 comes from this gene; cDNA EST yk200e4....	3E-14
500	3879937	(Z68220) T20D3.3 [Caenorhabditis elegans]	0.0000003
501	1170551	MITOCHONDRIAL INNER MEMBRANE PROTEASE SUBUNIT 2 >gi 1078046 pir  S53952 proteinase 2 precursor, mitochondrial inner membrane - yeast	4E-13
502	4210989	(AF121781) unknown [Homo sapiens]	0.007
503	4826454	(Z93241) dJ222E13.3.2 (PUTATIVE partial isoform 2) [Homo sapiens]	2E-46
504	5381426	(AF159046) SPANK-1 [Rattus norvegicus]	0.12
505	3687833	(AF069737) notchless [Xenopus laevis]	1E-65
506	2558501	(D63850) hepatoma-derived growth factor	3E-24
507	1061310	(M98326) valyl-tRNA synthetase [Homo sapiens]	2E-17
508	4503179	gene encoding a protein with coiled-coil alpha-helical domains protein [Homo sapiens]	3E-35
509	4096591	(U33460) DNA-directed RNA polymerase I, largest subunit [Homo sapiens]	6.3
510	4836515	(AF124788) WS-3 protein [Mus musculus]	5E-10
511	4507867	vessicle-associated membrane protein (VAMP)-associated protein of 33 kDa >gi 3320446 sapiens]	9E-33
512	5262560	(AL080125) hypothetical protein [Homo sapiens]	1E-41

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
513	134039	SMALL NUCLEAR RIBONUCLEOPROTEIN SM D1 (SNRNP CORE PROTEIN D1) (SM-D1) (SM-D AUTOANTIGEN) Sm-D [Homo sapiens] >gi 1256741 (M58558) Sm-D autoantigen [Mus musculus]	6E-13
514	4165247	(AL021397) dJ69E11.3 (Yeast YPR037W and worm C02C2.6 predicted proteins LIKE) [Homo sapiens] protein [Homo sapiens]	2E-52
515	3327220	(AB014603) KIAA0703 protein [Homo sapiens]	5E-53
516	4506599	ribosomal protein L13 L13 (BREAST BASIC CONSERVED PROTEIN 1) sapiens]	0.0000003
517	3877201	(Z70780) cDNA EST yk465d10.3 comes from this gene; cDNA EST yk465d10.5 comes from this gene; cDNA EST yk481d9.5 comes from this gene [Caenorhabditis elegans]	0.00002
519	5453601	cartilage-associated protein cartilage-associated protein (CASP) [Homo sapiens]	8E-70
520	4633085	(AF102507) fizzy-related protein [Homo sapiens]	7E-60
521	3237304	(U91561) pyridoxine 5'-phosphate oxidase [Rattus norvegicus]	6E-37
522	2565196	(AF000381) non-functional folate binding protein [Homo sapiens]	1E-17
523	3108057	(AF060539) channel interacting PDZ domain protein [Mus musculus]	3E-63
524	4160432	(AF071592) kinesin superfamily motor KIF4 [Homo sapiens]	8E-62
525	423916	myosin-I, Myr 1b (alternatively spliced) - rat	1E-66
526	2687591	(AF033201) clipper/cleavage and polyadenylation specificity factor 30 kDa subunit homolog [Mus musculus]	4E-69
527	464555	RAS-RELATED PROTEIN RAB-12 >gi 206531	6E-70
529	2737967	(U82992) envelope glycoprotein [Human immunodeficiency virus type 1]	9.6
530	1351047	SCARLET PROTEIN >gi 1079665	7.9
531	2924445	(AL022022) PE_PGRS [Mycobacterium tuberculosis]	7.5
532	2078307	(U67264) AcMNPV ORF8/ORF1629 homolog [Helicoverpa zea nuclear polyhedrosis virus]	4.5
533	2078307	(U67264) AcMNPV ORF8/ORF1629 homolog [Helicoverpa zea nuclear polyhedrosis virus]	4.4
534	972711	(L47121) bacteriocin [Carnobacterium piscicola]	4.2
535	2895941	(AF047011) prointerleukin-1 alpha [Canis familiaris]	2.5
536	283868	collagen alpha 1(XI) chain - chicken	2.4
537	2052126	(Z94752) hypothetical protein Rv0992c	0.17

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
538	2317926	(U97553) complement regulatory protein [murine herpesvirus 68]	0.0006
539	3242649	(AB015440) alpha 1 type I collagen [Rana catesbeiana]	0.98
540	540952	hypothetical protein - Pseudomonas aeruginosa aeruginosa]	2.6
542	4886288	(AL050300) putative protein [Arabidopsis thaliana]	0.22
543	3322778	(AE001225) conserved hypothetical protein [Treponema pallidum]	9.6
544	1772556	(Y07850) neurofibromin [Hylobates concolor] >gi 1772563 emb CAA69179  (Y07853) Neurofibromin [Homo sapiens] >gi 1772576 emb CAA69180	9.5
545	1083477	protein-tyrosine-phosphatase (EC 3.1.3.48), receptor type delta, splice form D precursor - mouse	0.08
546	1326298	(U58736) Similar to cuticular collagen. [Caenorhabditis elegans]	0.005
547	4007418	(AF071538) Ets transcription factor PDEF [Homo sapiens]	2E-70
548	4504469	homeo box B5 homeotic protein Hox 2.1 - human >gi 184293 (M92299) homeobox protein [Homo sapiens]	0.64
550	3367649	(Y16349) convulxin alpha [Crotalus durissus]	9.7
551	2808634	(AJ001909) transcriptional activator	0.69
553	1127550	(U18939) orf1 [Batrachocottus baikalensis]	4.6
555	2498512	LDLC PROTEIN protein LDLC - human >gi 575654 emb CAA84427  (Z34975) IdlCp [Homo sapiens]	6.5
556	5579050	(AL096874) hypothetical protein	3.5
557	3327421	(U97068) zonadhesin [Mus musculus]	4.4
558	2493011	PROBABLE CALCIUM-TRANSPORTING ATPASE 8 >gi 1078570 pir  S54520 probable membrane protein YMR162c - yeast (Saccharomyces cerevisiae) cerevisiae]	3.3
559	3242240	(AJ225122) hyperpolarization-activated cation channel, HAC1 [Mus musculus]	1.1
560	780367	(L41686) ORF [Rattus norvegicus]	1.1
561	3327226	(AB014606) KIAA0706 protein [Homo sapiens]	0.41
562	4886501	(AL050275) hypothetical protein [Homo sapiens]	1.1
565	5105067	(AP000061) 111aa long hypothetical protein [Aeropyrum pernix]	0.51
566	1079404	filamin, Mueller cell - chicken >gi 392018	4.2
567	4680264	(AF121977) odorant receptor S25	2.4
570	4927208	(AF133913) ARL-6 interacting protein-6 [Mus musculus]	5E-29
571	1749774	(Y10018) ANON-66Db [Drosophila melanogaster]	0.079
572	5104722	(AP000060) 224aa long hypothetical protein [Aeropyrum pernix]	9.9

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
573	320133	carbonate dehydratase (EC 4.2.1.1) - tiger shark (fragments) >gi 226952 prf 1612265A carbonic anhydrase [Galeocerdo cuvier]	5.7
574	1839000	(Z85982) hypothetical protein Rv1648	4.3
575	1839000	(Z85982) hypothetical protein Rv1648	4.2
576	1885385	(U87863) SNAP-25 interacting protein hrs-2 [Rattus norvegicus]	3.2
577	1055150	(U40028) weak similarity to glycoprotein H precursor K04H4.3 and C05B5.5; glycine-rich [Caenorhabditis elegans]	2.5
578	4262315	(AF075256) nonstructural polyprotein	1.1
579	1001674	(D64002) hypothetical protein	0.1
580	2224707	(AB002381) KIAA0383 [Homo sapiens]	0.027
581	765157	(S74099) polyprotein I(p1, p2, p10, p15/PR=protease, p19=matrix protein, p27/CA=capsid protein, p12/NC=nuclear capsid protein) [avian myeloblastosis virus AMV, Peptide, 701 aa] [Avian myeloblastosis virus]	4.3
582	1079438	ribonucleoprotein - chicken >gi 550458 gallus]	0.85
585	4584062	(AJ011380) polyprotein [porcine enterovirus 1]	7.6
586	3874412	(Z70034) similarity to 35.1KD hypothetical yeast protein (Swiss Prot accession number P38805); cDNA EST CEMSE65F comes from this gene; cDNA EST EMBL:T01315 comes from this gene; cDNA EST yk452e10.3 comes from this gene; cDNA ES... >gi 3877079 emb CAA90124  (Z49910) similarity to 35.1KD hypothetical yeast protein (Swiss Prot accession number P38805); cDNA EST CEMSE65F comes from this gene; cDNA EST EMBL:T01315 comes from this gene; cDNA EST yk452e10.3 comes from this gene; cDNA ES...	0.23
587	3123910	(AF039204) methyltransferase/helicase polyprotein	5.7
589	4539761	(AF118391) salivary peroxidase	3.2
590	115317	COLLAGEN ALPHA 1(VIII) CHAIN PRECURSOR (ENDOTHELIAL COLLAGEN) >gi 89957 pir  A34246 collagen alpha 1(VIII) chain precursor - rabbit	0.02
591	4758548	Homer, neuronal immediate early gene, 2 >gi 3834619 (AF093264) homer-2b [Homo sapiens]	2E-18
592	3219961	PUTATIVE HELICASE C17H9.02 IN CHROMOSOME I >gi 2330709 emb CAB11211.1  (Z98597) putative helicase [Schizosaccharomyces pombe]	7.3

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
594	5459418	(Y18285) mannose binding lectin-associated serine protease-2 [Rattus norvegicus]	3.3
595	4127783	(AJ130871) Bazooka protein [Drosophila melanogaster]	2.3
596	563601	(X78602) hypothetical replicase [Peanut clump virus]	6.6
599	1778663	(D83674) MesP1 [Mus musculus]	2.4
600	404789	(L22756) GTG start codon; ORFA [Bradyrhizobium japonicum]	0.027
603	1743404	(Z83327) transport-associated protein	3
604	1438537	(U49058) rA4 [Rattus norvegicus]	2
605	3929698	(AL031863) 1-evidence=predicted by content; 1-method=genefinder;084; 1-method_score=68.61; 1-evidence_end; 2-evidence=predicted by match; 2-match_accession=AA541052; 2-match_description=LD20837.5prime LD Drosophila melanogaster...	0.83
606	2708329	(AF038564) atrophin-1 interacting protein 4 [Homo sapiens]	5E-14
608	4099321	(U86145) neuraminidase [influenza A virus]	5.8
609	3881475	(Z82083) ZK1010.2 [Caenorhabditis elegans]	4E-12
612	220578	(D00570) open reading frame (251 AA) [Mus musculus]	0.056
613	4826716	equilibrative nucleoside transporter 1 >gi 1845345 (U81375) equilibrative nucleoside transporter 1 [Homo sapiens] >gi 3694940 transporter [Homo sapiens]	0.000008
615	2952333	(AF049885) Arg/Abl-interacting protein ArgBP2b [Homo sapiens]	1.9
618	727264	(U18791) hydroxyproline-rich glycoprotein precursor	4.3
619	4507009	solute carrier family 25 member 14 >gi 3851540 (AF078544) brain mitochondrial carrier protein-1 [Homo sapiens] mitochondrial carrier protein-1 (BMCP1) [Homo sapiens]	8E-36
620	4884108	(AL050089) hypothetical protein [Homo sapiens]	4E-41
622	113083	ACETYLCHOLINE RECEPTOR PROTEIN, BETA CHAIN PRECURSOR >gi 112056 pir  S13873 nicotinic acetylcholine receptor beta chain precursor - rat beta-subunit [Rattus rattus]	3.3
623	3757569	(AL031863) 1-evidence=predicted by content; 1-method=genefinder;084; 1-method_score=66.31; 1-evidence_end [Drosophila melanogaster]	0.65

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
624	422320	protein kinase (EC 2.7.1.37) - Plasmodium falciparum >gi 9878 emb CAA47704  (X67288) protein kinase [Plasmodium falciparum] >gi 3845284 (AE001419) calcium- deph. protein kinase (C-term. EF hand)	7.5
625	2496852	HYPOTHETICAL 131.5 KD PROTEIN C02F12.7 IN CHROMOSOME X >gi 1109896 (U41545) coded for by C. elegans cDNA yk4b2.5; coded for by C. elegans cDNA CEESN67F; coded for by C. elegans cDNA yk94h12.5; coded for by C. elegans cDNA CEESD93F; coded for by C. elegans cDNA CEESG57F; coded for by C. elegans cDNA yk4b2.3;...	0.0001
629	1361305	IgA-specific metalloendopeptidase (EC 3.4.24.13) homolog SepA precursor - Shigella flexneri flexneri]	4.2
635	3878636	(Z49128) similar to cAMP-dependant protein kinase; cDNA EST EMBL:T00719 comes from this gene; cDNA EST yk465d8.3 comes from this gene; cDNA EST yk465d8.5 comes from this gene; cDNA EST yk492f4.3 comes from this gene; cDNA EST y...	1E-39
636	3649791	(AB012917) serine protease (TLSP) [Homo sapiens]	8E-42
637	868241	(U29488) C56C10.3 gene product [Caenorhabditis elegans]	7E-14
640	2224593	(AB002324) KIAA0326 [Homo sapiens]	4E-25
642	4185794	(AF097025) cysteine desulfurase [Homo sapiens]	1E-64
643	1083755	phosphoprotein phosphatase (EC 3.1.3.16) PPT	2E-15
644	5525067	(AL096844) probable 3-oxacyl-(acyl-carrier-protein) reductase [Streptomyces coelicolor A3(2)]	2E-19
645	4151929	(AF110377) PCAF-associated factor 400 [Homo sapiens]	0.003
646	1174664	RHODOCOXIN >gi 576672 (U17130) ThcC	0.85
648	2702397	(AF038608) Contains similarity to Pfam domain: PF00046 (homeobox), Score=81.5, E-value=5.5e-21, N=1 [Caenorhabditis elegans]	1.6
649	4506891	SET translocation (myeloid leukemia-associated) >gi 346361 pir  A45018 template activating factor-I, splice form beta - human >gi 338039	3E-10
650	4758006	chloride intracellular channel 3 chloride channel CLIC3 [Homo sapiens]	9E-13
651	3702453	(AL021366) cICK0721Q.3 (Kinesin related protein) [Homo sapiens]	5E-38
654	2276316	(Z96810) GLYT-1 LIKE [Homo sapiens]	7E-53
655	3599478	(AF085185) Myosin-IA [Acanthamoeba castellanii]	0.18
657	2735147	(U87971) syntaxin 5 [Rattus norvegicus]	3E-08

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
658	4557651	heat shock transcription factor 4 transcription factor 4 [Homo sapiens]	3E-23
659	4557651	heat shock transcription factor 4 transcription factor 4 [Homo sapiens]	3E-23
661	4505135	midkine (neurite growth-promoting factor 2) >gi 127116 sp P21741 MK_HUMAN MIDKINE PRECURSOR (NEURITE OUTGROWTH-PROMOTING PROTEIN) (MK) OUTGROWTH-PROMOTING FACTOR 2) >gi 88156 pir JH0385 midkine precursor - human >gi 35087 emb CAA38908  sapiens] >gi 182651 (M69148) midkine [Homo sapiens] sapiens] >gi 219929 dbj BAA01457  (D10604) midkine [Homo sapiens]	2E-15
662	1708021	GLYPICAN-2 PRECURSOR (CEREBROGLYCAN) precursor - rat >gi 440127 (L20468) cerebroglycan cerebroglycan [Rattus norvegicus]	0.00004
663	4504279	H3 histone, family 3A 3B (H3.3B) >gi 122075 sp P06351 H33_HUMAN HISTONE H3.3 rabbit >gi 90624 pir S04186 histone H3.3 - mouse histone H3.3 - fruit fly (Drosophila melanogaster) histone H3.3B - chicken >gi 2119023 pir S61218 histone H3.3 - fruit fly (Drosophila hydei) histone (AA 1-136) [Oryctolagus cuniculus] 136) [Gallus gallus] >gi 161190 (M17876) histone H3 sapiens] >gi 306849 (M11353) H3.3 histone [Homo sapiens] norvegicus] >gi 761716 emb CAA88778  (Z48950) histone H3.3 [Homo sapiens] >gi 963024 emb CAA57078  (X81206) histone H3.3 [Drosophila hydei] >gi 963026 emb CAA57081	6E-47
664	4557471	coat assembly complex AP1 sigma-1A subunit >gi 231555 sp Q00382 AP19_MOUSE CLATHRIN COAT ASSEMBLY PROTEIN AP19 (CLATHRIN COAT ASSOCIATED PROTEIN AP19) (GOLGI ADAPTOR AP-1 19 KD ADAPTIN) (HA1 19 KD SUBUNIT) (CLATHRIN ASSEMBLY PROTEIN COMPLEX 1 SMALL CHAIN) >gi 109674 pir A40535 clathrin-associated protein 19 - mouse >gi 191983 AP-1 clathrin adaptor complex [Homo sapiens]	2E-64
671	410607	drebrin A [chickens, Peptide, 653 aa]	5.4
672	5031433	(AF152396) beta-lactamase-like protein [Mycobacterium fortuitum]	2.3



**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
673	1346125	GROWTH/DIFFERENTIATION FACTOR 5 PRECURSOR (GDF-5) (CARTILAGE-DERIVED MORPHOGENETIC PROTEIN 1) (CDMP-1) >gi 1082279 pir  A55452 cartilage-derived morphogenetic protein 1 precursor - human >gi 600732 (U13660) cartilage-derived morphogenetic protein 1 precursor [Homo sapiens]	1.4
674	1730569	PHOSPHATIDYLINOSITOL-4-PHOSPHATE 5-KINASE TYPE III (1-PHOSPHATIDYLINOSITOL-4-PHOSPHATE KINASE) (PIP5KIII) (PTDINS(4)P-5-KINASE C ISOFORM) 1-phosphatidylinositol-4-phosphate 5-kinase (EC 2.7.1.68) isoform C - human >gi 1042034 bbs 169311 isoform C, PtdIns4P 5-kinase isoform C [human, peripheral blood leukocytes, Peptide, 406 aa] [Homo sapiens]	1.2
675	121781	ENDOGLUCANASE A Bacillus sp >gi 142660 (M14781) cellulase (EC 3.2.1.4)	0.8
676	2497556	PUTATIVE MOLLUSCAN INSULIN-RELATED PEPTIDE(S) RECEPTOR PRECURSOR >gi 1020140 emb CAA59353  peptide(s) [Lymnaea stagnalis]	0.28
677	1330328	(U50595) Rab8-interacting protein [Mus musculus]	0.096
678	5689505	(AB029007) KIAA1084 protein [Homo sapiens]	4E-59
679	3876327	(Z79754) Similarity to some phosphatases and kinases; cDNA EST EMBL:Z14643 comes from this gene	5E-10
680	4589530	(AB023160) KIAA0943 protein [Homo sapiens]	1E-73
681	533891	(L36073) T-cell receptor antigen [Mus musculus] musculus]	0.31
683	137889	HYPOTHETICAL GENE 3 PROTEIN ictalurid herpesvirus 1 (strain auburn 1) >gi 331213 4886-5794 [Ictalurid herpesvirus 1]	1.6
684	421057	hypothetical protein - Escherichia coli plasmid R100 >gi 42624 emb CAA39338  (X55815) open reading frame [Escherichia coli]	0.26

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
685	3876064	(Z72507) similar to Thrombospondin type 1 domain; cDNA EST EMBL:D34389 comes from this gene; cDNA EST EMBL:D37437 comes from this gene; cDNA EST EMBL:D64645 comes from this gene; cDNA EST EMBL:D65908 comes from this gene; cDNA ... >gi 3877441 emb CAA96654  EST EMBL:D34389 comes from this gene; cDNA EST EMBL:D37437 comes from this gene; cDNA EST EMBL:D64645 comes from this gene; cDNA EST EMBL:D65908 comes from this gene; cDNA ...	4.5
686	2317934	(U97553) unknown [murine herpesvirus 68]	0.02
689	1377886	(L46815) DNA binding protein Rc [Mus musculus]	4.7
690	627570	phosphorylation regulatory protein HP-10 - human	1.6
691	480485	cytochrome-c oxidase (EC 1.9.3.1) chain III - Herpetomonas mariadeanei mitochondrion (SGC6)	1.2
692	4885599	SKI-like SNON >gi 68923 pir  TVHUSN transforming protein sno-N - human >gi 36511 emb CAA33289  (X15219) snoN protein (AA 1 - 684) [Homo sapiens]	0.18
693	3927838	(AC005727) unknown protein [Arabidopsis thaliana]	0.000007
694	5104854	(AP000061) 522aa long hypothetical protein [Aeropyrum pernix]	2.6
698	4240173	(AB020649) KIAA0842 protein [Homo sapiens]	4E-39
699	4096674	(U35833) ARX [Mus musculus]	5E-16
700	117525	LYCOPENE CYCLASE	6.1
701	4049765	(AF063866) ORF MSV249 hypotehtical protein [Melanoplus sanguinipes entomopoxvirus]	8.1
702	4240203	(AB020664) KIAA0857 protein [Homo sapiens]	8E-43
703	3874634	(Z68159) Similarity to Yeast DNA repair protein RAD50 (SW:RA50_YEAST); cDNA EST EMBL:D37313 comes from this gene; cDNA EST EMBL:D34285 comes from this gene [Caenorhabditis elegans]	3.4
704	201995	(M64866) thrombospondin [Mus musculus]	2.3
705	118288	LARIAT DEBRANCHING ENZYME debranching enzyme [Saccharomyces cerevisiae] >gi 172552 cerevisiae  >gi 486256 emb CAA81990  (Z28149) ORF YKL149c [Saccharomyces cerevisiae]	1.9
706	2654898	(AF016121) envelope protein 2 [Hepatitis GB virus C]	1.6
707	5701582	(AF026205) No definition line found [Caenorhabditis elegans]	1.5
708	2327063	(AF001305) protease 1 [Pneumocystis carinii f. sp. carinii]	0.18
709	422761	basonuclin - human	0.17

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
710	71403	collagen alpha 1(I) chain - rat (fragments)	0.007
714	5105952	(AP000064) 101aa long hypothetical protein [Aeropyrum pernix]	9.7
717	1168479	APX-1 PROTEIN PRECURSOR >gi 473871	6.3
718	4929024	(AF139719) unknown [Klebsiella oxytoca]	0.49
719	417509	GENOME POLYPROTEIN [CONTAINS: NUCLEAR INCLUSION PROTEIN B (NI-B) (NIB) (RNA-DIRECTED RNA POLYMERASE) ; COAT PROTEIN (CP)] >gi 320062 pir  GNVSMB genome polyprotein - maize dwarf mosaic virus (strain B) protein [Maize dwarf mosaic virus]	0.51
720	1351287	TROPOMYOSIN 1, FUSION PROTEIN 34 exons [Drosophila melanogaster]	0.11
721	3005601	(AF052433) katanin p80 subunit [Strongylocentrotus purpuratus]	2E-16
722	1360769	DNA helicase-primase complex component - equine herpesvirus 2 >gi 695213 (U20824) DNA helicase-primase complex component [Equine herpesvirus 2]	2
723	5689525	(AB029017) KIAA1094 protein [Homo sapiens]	1E-28
724	3876982	(Z81536) F40D4.11 [Caenorhabditis elegans]	7.7
725	85437	neurofilament triplet M protein - Pacific electric ray (fragment)	0.011
727	2978255	(AB007407) myeloid zinc finger protein-2	0.42
730	4091914	(AF064823) NADH dehydrogenase subunit 5 [Sarcophyton glaucum]	3.5
731	2905612	(AF041845) gp130p1 [Xenopus laevis]	2.7
732	2905612	(AF041845) gp130p1 [Xenopus laevis]	2.7
733	2887499	(AC004143) R29893_1 [Homo sapiens]	2.7
738	4587223	(AB021660) carbonic anhydrase VB [Homo sapiens]	3.3
739	4886445	(AL050269) hypothetical protein [Homo sapiens]	1E-14
740	5102812	(AL079308) putative serine/threonine protein kinase [Streptomyces coelicolor]	1.1
741	4539386	(AL035526) extensin-like protein	0.14
742	2496576	HYPOTHETICAL 32.5 KD PROTEIN Y4AD	7.8
743	3882265	(AB018315) KIAA0772 protein [Homo sapiens]	2E-13
744	3875383	(Z54284) D2085.2 [Caenorhabditis elegans]	0.000003
745	3116122	(AL023287) hypothetical protein	3.8
749	3043716	(AB011168) KIAA0596 protein [Homo sapiens]	0.28
750	3168604	(U88154) proline and glutamic acid rich nuclear protein isoform [Homo sapiens]	0.035
752	2429324	(AF015116) interleukin 6 receptor [Sus scrofa]	1.3

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
753	808667	(M15972) The first atg start codon is the AA before the stop codon in ORF1; putative [Human herpesvirus 4]	1.1
754	164840	(M10412) carbonic anhydrase I [Oryctolagus cuniculus]	0.88
755	2133726	synapse-associated protein sap47-1 - fruit fly (Drosophila melanogaster) >gi 929571 emb CAA56416  melanogaster]	7E-22
756	136797	HYPOTHETICAL PROTEIN UL7 cytomegalovirus (strain AD169) >gi 59612 emb CAA35440	7.4
757	3881372	(Z81141) ZC47.14 [Caenorhabditis elegans]	3.3
759	3327160	(AB014573) KIAA0673 protein [Homo sapiens]	3E-57
761	1651655	(D90899) PNIL34 [Synechocystis sp.]	6.3
762	94228	env polyprotein - feline immunodeficiency virus >gi 59290 emb CAA40321  (X57002) ENV [Feline immunodeficiency virus] >gi 228554 prf 1805419A envelope glycoprotein [Feline immunodeficiency virus]	8.2
763	5102812	(AL079308) putative serine/threonine protein kinase [Streptomyces coelicolor]	0.94
764	5454104	transcriptional adaptor 2 complex) >gi 3335555 (AF069733) ADA3-like protein [Homo sapiens]	2E-54
766	1280102	(U55370) coded for by C. elegans cDNA CEESD82F; coded for by C. elegans cDNA CEESD82R [Caenorhabditis elegans]	4.5
768	3875720	(Z50857) M79.2 [Caenorhabditis elegans] elegans]	4.9
769	4502247	armadillo repeat protein sapiens]	4.8
770	3860231	(AF102887) thrombospondin-4 [Mus musculus]	3.6
771	539999	receptor tyrosine kinase c-kit - rat tyrosine kinase [Rattus rattus]	2.9
773	3550638	(AJ006986) repeating unit transporter	6.5
775	5105066	(AP000061) 124aa long hypothetical protein [Aeropyrum pernix]	7.7
776	2622679	(AE000916) tungsten formylmethanofuran dehydrogenase, subunit A [Methanobacterium thermoautotrophicum]	4.8
777	1086650	(U41015) Similar to serine/threonine protein kinase.	0.4
778	1363837	probable finger protein YOL054w - yeast cerevisiae] >gi 1419863 emb CAA99062  (Z74796) ORF YOL054w [Saccharomyces cerevisiae]	0.14
779	500858	(D14168) 50kDa lectin [Bombyx mori]	0.0000004
780	4680659	(AF132944) CGI-10 protein [Homo sapiens]	4E-67
785	4586844	(AB015633) type II membrane protein	3E-09
786	117800	CYANAMIDE HYDRATASE (UREA HYDRO-LYASE) >gi 102020 pir A39365 cyanamide hydratase verrucaria]	1.8

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
787	5689513	(AB029011) KIAA1088 protein [Homo sapiens]	3E-09
790	2829815	CARBON STARVATION PROTEIN A HOMOLOG tuberculosis]	6.9
791	2224671	(AB002363) KIAA0365 [Homo sapiens]	6.6
792	3834629	(AF094519) diaphanous-related formin; p134 mDia2 [Mus musculus]	1E-23
793	1572522	(U67194) upf54.8 [Enterobacter aerogenes]	3.3
794	3876099	(Z75536) similar to dynein heavy chain; cDNA EST EMBL:D27549 comes from this gene; cDNA EST EMBL:D34859 comes from this gene [Caenorhabditis elegans]	0.00001
797	3319990	(Y17267) ubiquitin-conjugating enzyme [Mus musculus]	4E-40
799	473513	(M17619) NADH dehydrogenase subunit COIII [Asterina pectinifera]	2.8
800	1460094	(L35031) Orf159; Predicted integral membrane protein with 4 transmembrane sequences (method of Klein, Kanehisa, DeLisi in PCGene). One nucleotide overlap with upstream orf.; putative [Escherichia coli]	1.6
801	4455041	(AF116463) unknown [Streptomyces lincolnensis]	0.081
802	1174467	STAR PROTEIN >gi 472815 (L31886) amino acid feature: potential transmembrane domain, aa 280 .. 302 [Drosophila melanogaster]	0.053
805	5031861	candidate tumor suppressor involved in B-CLL >gi 3133092 emb CAA12136  (AJ224819) tumor suppressor [Homo sapiens]	3E-15
807	1947168	(AF000299) No definition line found [Caenorhabditis elegans]	0.24
808	5442104	(AF126467) Gag protein [Simian retrovirus SRV-2]	7.8
809	1684987	(U20649) NADH dehydrogenase subunit [Cymbidium atropurpureum]	6
810	1709814	PHOTOSYSTEM I P700 CHLOROPHYLL A APOPROTEIN A1 >gi 2147916 pir  S73205 photosystem I p700 chlorophyll A apoprotein A1 - Porphyra purpurea chloroplast >gi 1276750 (U38804) Photosystem I p700 chlorophyll A apoprotein A1 [Porphyra purpurea]	0.74
811	400280	MELANOCYTE STIMULATING HORMONE RECEPTOR (MSH-R) (MELANOTROPIN RECEPTOR) (MELANOCORTIN-1 RECEPTOR) (MC1-R) >gi 110690 pir  S25581 melanocyte-stimulating hormone receptor - mouse hormone receptor [Mus musculus]	10

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
812	3581887	(AL031540) internalin- related, Leucine rich repeat containing protein [Schizosaccharomyces pombe]	3.6
813	2462671	(Z98529) putative RNA-binding protein	0.002
814	2492678	ACTIN-LIKE PROTEIN ARP8 YOR141c - yeast (Saccharomyces cerevisiae)	1E-15
815	3879157	(Z77668) predicted using Genefinder; Similarity to Mouse selenium-binding protein	6
816	3668141	(AJ007398) PBK1 protein [Homo sapiens]	8E-57
817	3875131	(Z70750) similar to vanadate resistance protein transmembranous domains [Caenorhabditis elegans]	5E-33
819	2494509	PUTATIVE FORKHEAD-RELATED TRANSCRIPTION FACTOR F26A1.2 >gi 860690 (U27312) weak similarity to FKH-5 Protein (Mouse, PIR:S36074) and D. melanogaster fork head domain protein FD4	9.3
820	547625	TRANSCRIPTION FACTOR HES-1 (HAIRY AND ENHANCER OF SPLIT 1) >gi 539928 pir  A53336 transcription factor HES-1 - mouse factor HES-1 [Mus musculus]	0.69
821	113670	!!!! ALU CLASS E WARNING ENTRY !!!!	0.23
822	3329124	(AE001337) S/T Protein Kinase [Chlamydia trachomatis]	2.5
823	4982299	(AE001811) conserved hypothetical protein [Thermotoga maritima]	0.09
824	4530509	(AF124748) putative RNA-binding protein	3
825	75198	glycoprotein precursor - Uukuniemi virus	0.59
826	127477	MEMBRANE-ASSOCIATED ATPASE GAMMA CHAIN (SUL-ATPASE GAMMA) (ATP SYNTHASE, SUBUNIT D) 3.6.1.34) gamma chain - Sulfolobus acidocaldarius	0.2
827	3915729	HYPERPLASTIC DISCS PROTEIN (HYD PROTEIN) >gi 2673887 (L14644) hyperplastic discs protein	0.22
836	4493951	(AL034556) predicted using hexExon; MAL3P5.16 (PFC0650w), Hypothetical protein, len: 1282 aa	0.69
837	4884027	(AJ011655) hypothetical protein	2.5
838	3873691	(Z46240) similar to endothelial actin-binding protein repeats; cDNA EST EMBL:D27639 comes from this gene; cDNA EST EMBL:D33624 comes from this gene; cDNA EST EMBL:D33507 comes from this gene; cDNA EST EMBL:D36493 comes from thi...	9.7

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
839	4507425	teratocarcinoma-derived growth factor 1 >gi 117473 sp P13385 CRI1_HUMAN TERATOCARCINOMA-DERIVED GROWTH FACTOR 1 (EPIDERMAL GROWTH FACTOR-LIKE CRIPTO PROTEIN CR1) (CRIPTO-1 GROWTH FACTOR) (CRGF) >gi 87385 pir  A30362 epidermal growth factor-like protein CR3 - human >gi 30221 emb CAA32467  factor 1 [Homo sapiens]	0.49
840	2271518	(AF009829) unknown [Mycobacterium bovis]	0.082
841	4093025	(AF070836) NADH dehydrogenase subunit 4	1.5
842	2662603	(AF036699) No definition line found	6.4
843	3880368	(Z95621) similar to collagen; cDNA EST EMBL:D69870 comes from this gene; cDNA EST EMBL:D70498 comes from this gene [Caenorhabditis elegans] cDNA EST EMBL:D69870 comes from this gene; cDNA EST EMBL:D70498 comes from this gene [Caenorhabditis elegans]	3.3
844	731490	HYPOTHETICAL 73.0 KD PROTEIN IN SEB1-PTC2 INTERGENIC REGION >gi 1077682 pir  S50591 hypothetical protein YER088c - yeast (Saccharomyces cerevisiae) >gi 603326 (U18839) Yer088cp [Saccharomyces cerevisiae]	1.7
852	4929605	(AF151826) CGI-68 protein [Homo sapiens]	1E-61
855	4996369	(AB021267) polyprotein [Arabidopsis thaliana]	2.2
856	4100563	(AF001175) ribonuclease P protein subunit p14 [Homo sapiens]	2E-10
863	458692	(U06631) homologous to mouse gene PC326:GenBank Accession Number M95564 [Homo sapiens]	6
864	123518	RNA POLYMERASE PRINCIPAL SIGMA FACTOR HRDA >gi 80717 pir  S17929 transcription initiation factor sigma hrdA - Streptomyces coelicolor subunit (AA 1-396) [Streptomyces coelicolor]	3.1
865	126296	LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein [Nycticebus coucang]	0.0001
866	4972730	(AF132172) unknown [Drosophila melanogaster]	3E-19
867	128169	HIGH-MOLECULAR WEIGHT COBALT-CONTAINING NITRILE HYDRATASE SUBUNIT ALPHA hydratase (EC 4.2.1.84) - Rhodococcus rhodochrous rhodochrous]	5
868	2809262	(AC002560) F21B7.31 [Arabidopsis thaliana]	1.9

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
869	4758374	four and a half LIM domains 3 LIM-protein FHL3 [Homo sapiens]	0.94
871	400784	ACIDIC PHOSPHOPROTEIN PRECURSOR (50 KD ANTIGEN) >gi 477254 pir A48455 acidic phosphoprotein PcEMA1q - Plasmodium chabaudi >gi 160603 (M95789) acidic phosphoprotein [Plasmodium chabaudi]	3.3
872	2495704	HYPOTHETICAL PROTEIN KIAA0129 product is novel. [Homo sapiens]	0.0002
874	4514345	(AB013374) Ykok [Bacillus halodurans]	3.7
875	5453794	nucleolar protein (KKE/D repeat)	1E-18
877	2650666	(AE001107) A. fulgidus predicted coding region AF2427	0.076
878	1572836	(U70858) similar to family 18 of glycosyl hydrolases	2.7
879	400853	VITAMIN-K DEPENDENT PROTEIN C PRECURSOR (AUTOPROTHROMBIN IIA) (ANTICOAGULANT PROTEIN C) >gi 112216 pir S18994 protein C (activated) (EC 3.4.21.69) precursor - rat >gi 56963 emb CAA45617	4.7
880	113668	!!!! ALU CLASS C WARNING ENTRY !!!!	4.9
881	5262748	(AJ133120) Proline rich synapse associated protein 2 [Rattus norvegicus]	8.6
883	1352130	CYTOCHROME C OXIDASE POLYPEPTIDE I subunit I [Chondrus crispus]	9.9
886	547708	TRANSCRIPTIONAL REGULATOR IE63 human herpesvirus 1 (strain HFEM)	0.31
887	4758216	dishevelled 2 (homologous to Drosophila dsh) >gi 2291008 gb AAB65243.1  (AF006012) dishevelled 2 [Homo sapiens]	0.051
888	2291257	(AF016430) contains similarity to a BR-C/TTK domain	0.016
889	2911858	(AF047659) No definition line found [Caenorhabditis elegans]	3E-26
890	1932813	(U88065) dsRNA adenosine deaminase [Xenopus laevis]	3.4
893	728836	!!!! ALU SUBFAMILY SP WARNING ENTRY	0.39
895	2580578	(AF000996) ubiquitous TPR motif, Y isoform [Homo sapiens]	0.008
896	1869831	(Z86099) UL9 [human herpesvirus 2]	9.9
897	2632151	(Y14493) PHOX2b protein [Mus musculus] musculus]	2.6
898	1079078	GCR 101 protein - fruit fly (Drosophila melanogaster) >gi 510509 emb CAA50795  (X71975) put. homologue to S.cerevisiae GAR1 gene [Drosophila melanogaster]	0.0000004
900	418745	NADH dehydrogenase (ubiquinone) (EC 1.6.5.3) chain 4 - Crithidia oncopelti mitochondrion (SGC6) subunit 4 [Crithidia oncopelti]	4.6



**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
901	3874002	(Z36719) cDNA EST yk208g3.5 comes from this gene [Caenorhabditis elegans]	0.41
903	731630	HYPOTHETICAL 50.6 KD PROTEIN IN RPL14B-GPA1 INTERGENIC REGION >gi 626594 pir  S46802 hypothetical protein YHR004c - yeast (Saccharomyces cerevisiae) >gi 500822 (U10555) Yhr004cp [Saccharomyces cerevisiae]	0.42
904	5081459	(AF124435) p55-related MAGUK protein DLG3 [Danio rerio]	6E-27
906	2497012	HYPOTHETICAL 26.6 KD PROTEIN T19C3.4 IN CHROMOSOME III >gi 849238 (U28412) similar to polyposis locus protein 1 (SP:DP1_HUMAN, Q00765)	3E-34
907	113671	!!!! ALU CLASS F WARNING ENTRY !!!!	0.0002
909	5410448	(AF135183) Recq helicase 5	2E-52
910	1407655	(U58884) SH3P7 [Mus musculus]	0.000002
912	2981631	(AB012223) ORF2 [Canis familiaris]	0.000002
913	2289030	(U53564) N-terminal region of the protein [Mus musculus]	3.6
914	4567179	(AC007228) BC37295_1 [Homo sapiens]	0.000002
915	2842531	(AB004291) gamma-subunit of enolase	4.4
916	1177607	(X92485) pva1 [Plasmodium vivax]	0.33
918	3638957	(AC004877) sco-spondin-mucin-like; similar to P98167 uncertain [Homo sapiens]	4.3
919	5032163	transcription factor 17	1E-23
920	3873738	(Z37983) contains five copies of the EGF-like aspartic acid and asparagine hydroxylation site comes from this gene; cDNA EST EMBL:D27753 comes from this gene; cDNA EST ...	4.6
921	4503561	epithelial membrane protein 2 PROTEIN-2 (EMP-2) (XMP PROTEIN) >gi 2474096 (U52100) XMP	4E-08
922	4506051	primase, polypeptide 1 (49kD) SUBUNIT (DNA PRIMASE 49 KD SUBUNIT) (P49) p48) [Homo sapiens]	0.064
923	2738451	(AF003534) putative tyrosine protein kinase [Chilo iridescent virus]	5E-08
925	543222	glutamine (Q)-rich factor 1, QRF-1 - mouse factor 1, QRF-1 [mice, B-cell leukemia, BCL1, Peptide Partial, 84 aa]	2E-44
927	961466	(D63777) adhesive plaque matrix protein	4.9

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
928	121404	ANAEROBIC GLYCEROL-3-PHOSPHATE DEHYDROGENASE SUBUNIT B (G-3-P DEHYDROGENASE) subunit B [Escherichia coli] >gi 1788575 (AE000314) sn-glycerol-3-phosphate dehydrogenase (anaerobic), membrane anchor subunit [Escherichia coli] dehydrogenase (EC 1.1.99.5) (anaerobic) chain B	0.49
930	5640009	(AF167316) zinc finger protein ZFP109 [Mus musculus]	1.2
931	4678836	(AL049701) hypothetical protein [Homo sapiens]	8E-43
932	4758556	U4/U6-associated RNA splicing factor >gi 2708307 (AF016370) U4/U6 small nuclear ribonucleoprotein hPrp3 [Homo sapiens]	6E-09
933	729079	CARBOXY-CIS,CIS-MUCONATE CYCLASE 3-carboxy-cis,cis-muconate cyclase [Neurospora crassa]	6.4
934	5080758	(AC007842) BC331191_1 [Homo sapiens]	2E-08
936	4506009	protein phosphatase 1, regulatory subunit 10 >gi 2117159 emb CAA73697  (Y13247) FB19 protein [Homo sapiens]	8E-32
937	726403	(U23175) similar to anion exchange protein [Caenorhabditis elegans]	1E-25
938	726403	(U23175) similar to anion exchange protein [Caenorhabditis elegans]	3E-26
940	2500573	RIBONUCLEASE S-4 PRECURSOR (STYLAR GLYCOPROTEIN 4) (S4-RNASE) >gi 1405426 emb CAA65320	3.2
941	2291171	(AF016420) No definition line found [Caenorhabditis elegans]	8.7
942	3914191	UDP-N-ACETYLGLUCOSAMINE--PEPTIDE N-ACETYLGLUCOSAMINYLTRANSFERASE 110 KD SUBUNIT (O-GLCNAC TRANSFERASE P110 SUBUNIT) >gi 1931579 (U76557) O-GlcNAc transferase, p110 subunit [Rattus norvegicus]	1E-17
943	549341	MAJOR CAPSID PROTEIN L1 type 34 >gi 396996 emb CAA52560  (X74476) late protein	8.1
944	4680673	(AF132951) CGI-17 protein [Homo sapiens]	3E-65
945	4191610	(AF117107) IGF-II mRNA-binding protein 2 [Homo sapiens]	1E-51
947	4589512	(AB023151) KIAA0934 protein [Homo sapiens]	5E-46
948	2193870	(D84391) reverse transcriptase [Mus musculus]	2E-09
949	3046871	(AB003753) high sulfur protein B2E [Rattus norvegicus]	5.7

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
950	140130	HYPOTHETICAL 85.7 KD PROTEIN (ORF C-792) >gi 76733 pir  S03232 hypothetical protein C-792	8
951	2494897	PERIODIC TRYPTOPHAN PROTEIN 1 HOMOLOG (KERATINOCYTE PROTEIN IEF SSP 9502) >gi 177765 sapiens]	2E-08
954	2465332	(U92819) unnamed HERV-H protein [Homo sapiens]	8E-14
955	4200446	(AF102777) FYVE finger-containing phosphoinositide kinase [Mus musculus]	8E-15
956	3859560	(AF098668) acyl-protein thioesterase [Homo sapiens]	2E-61
958	4008551	(AL034490) pseudouridylate synthase	6.7
959	4508041	zinc finger protein 91 (HPF7, HTF10) >gi 549839 sp Q05481 ZN91_HUMAN ZINC FINGER PROTEIN 91 (ZINC FINGER PROTEIN HTF10) (HPF7)	4E-19
961	1085397	taurine transporter - human >gi 559853	2E-14
962	134211	SERUM RESPONSE FACTOR ACCESSORY PROTEIN 1B (SAP-1B) (ETS-DOMAIN PROTEIN ELK-4) protein-1 form b, SAP-1b - human >gi 338035 (M85164) SAP-1B protein [Homo sapiens]	0.038
963	961444	(D63876) KIAA0154 gene product is related to mouse gamma adaptin. [Homo sapiens]	1E-20
964	4758488	general transcription factor IIF, polypeptide 2 (30kD subunit) FACTOR IIF, BETA SUBUNIT (TFIIF-BETA) (TRANSCRIPTION INITIATION FACTOR RAP30) >gi 105393 pir  S18677 ATP-dependent RNA helicase RAP30/74 chain RAP30 - human RAP30 [Homo sapiens]	0.00009
971	5262560	(AL080125) hypothetical protein [Homo sapiens]	2E-41
972	1707274	(U80931) strong similarity to class-III of pyridoxal-phosphate- dependent aminotransferases	7E-31
973	3810839	(AL032684) conserved hypothetical zinc-finger protein [Schizosaccharomyces pombe]	7E-12
975	4887229	(AF150755) microtubule-actin crosslinking factor [Mus musculus]	5E-22
976	1675222	(U67203) ACF7 neural isoform 1 [Mus musculus]	4E-22
977	987050	(X65335) lacZ [Cloning vector pSV-beta-Galactosidase Control]	3E-15
978	5052075	(AF074331) PAPS synthetase-2	8E-63
979	3983573	(AC004839) similar to IgD B-cell receptor-associated protein (BAP); similar to S46997 (PID:g1085495) [Homo sapiens]	8E-58

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
980	3108057	(AF060539) channel interacting PDZ domain protein [Mus musculus]	1E-63
981	1755049	(U55042) myosin X [Bos taurus]	5E-55
982	1783123	(AB000170) endopeptidase 24.16 type M3 endopeptidase 24.16 type M3 [Sus scrofa] type M3 [Sus scrofa] >gi 1783130 dbj BAA19065  type M3 [Sus scrofa] >gi 1783134 dbj BAA19067  type M3 [Sus scrofa]	2E-58
983	1098627	(U31079) 47 kDa heat shock protein [Danio rerio]	4.5
984	3649791	(AB012917) serine protease (TLSP) [Homo sapiens]	6E-76
985	1177607	(X92485) pva1 [Plasmodium vivax]	0.13
988	4106444	(AF085692) multidrug resistance-associated protein 3B	0.97
989	3757569	(AL031863) 1-evidence=predicted by content; 1-method=genefinder;084; 1-method_score=66.31; 1-evidence_end [Drosophila melanogaster]	2.5
990	115317	COLLAGEN ALPHA 1(VIII) CHAIN PRECURSOR (ENDOTHELIAL COLLAGEN) >gi 89957 pir  A34246 collagen alpha 1(VIII) chain precursor - rabbit	0.29
991	1743404	(Z83327) transport-associated protein	6.2
992	3878636	(Z49128) similar to cAMP-dependant protein kinase; cDNA EST EMBL:T00719 comes from this gene; cDNA EST yk465d8.3 comes from this gene; cDNA EST yk465d8.5 comes from this gene; cDNA EST yk492f4.3 comes from this gene; cDNA EST y...	3E-53
993	728837	!!!! ALU SUBFAMILY SQ WARNING ENTRY	4
994	1098627	(U31079) 47 kDa heat shock protein [Danio rerio]	4.5
995	3649791	(AB012917) serine protease (TLSP) [Homo sapiens]	6E-76
996	115317	COLLAGEN ALPHA 1(VIII) CHAIN PRECURSOR (ENDOTHELIAL COLLAGEN) >gi 89957 pir  A34246 collagen alpha 1(VIII) chain precursor - rabbit	0.29
997	113668	!!!! ALU CLASS C WARNING ENTRY !!!!	0.012
998	3722229	(AF058790) SynGAP-b [Rattus norvegicus]	3.4
999	3876327	(Z79754) Similarity to some phosphatases and kinases; cDNA EST EMBL:Z14643 comes from this gene	6E-33
1000	4886288	(AL050300) putative protein [Arabidopsis thaliana]	0.22
1001	4589530	(AB023160) KIAA0943 protein [Homo sapiens]	1E-73
1003	4063766	(D87895) chitinase [Emericella nidulans]	0.016
1004	4505727	peroxisomal biogenesis factor 3 PROTEIN PEX3 (PEROXIN-3) >gi 3336882 emb CAA04879  sapiens] >gi 4218426 emb CAA08904  (AJ009866) Pex3p	e-126
1005	2832671	(AL021712) hypothetical protein	1.7

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
1006	1175815	HYPOTHETICAL PROTEIN HI1476 Haemophilus influenzae (strain Rd KW20) >gi 1574317 influenzae Rd]	7.1
1007	4927208	(AF133913) ARL-6 interacting protein-6 [Mus musculus]	4E-28
1008	2327063	(AF001305) protease 1 [Pneumocystis carinii f. sp. carinii]	0.18
1009	2384956	(AF022985) No definition line found [Caenorhabditis elegans]	3E-19
1010	3877495	(Z48583) cDNA EST EMBL:T00483 comes from this gene; cDNA EST EMBL:D64526 comes from this gene; cDNA EST EMBL:D65147 comes from this gene; cDNA EST EMBL:D68484 comes from this gene; cDNA EST EMBL:D67548 comes from this gene; c... >gi 3879229 emb CAA88749  EST EMBL:D64526 comes from this gene; cDNA EST EMBL:D65147 comes from this gene; cDNA EST EMBL:D68484 comes from this gene; cDNA EST EMBL:D67548 comes from this gene; cDN...	6.7
1011	3355308	(AJ009695) wall-associated kinase 4	0.74
1012	297922	(X66052) D-lactate dehydrogenase	2
1013	4691726	(AF124490) ARF GTPase-activating protein GIT1 [Homo sapiens]	4E-68
1014	2384956	(AF022985) No definition line found [Caenorhabditis elegans]	3E-19
1016	1469880	(D63483) The KIAA0149 gene product is related to Notch3. [Homo sapiens]	0.58
1017	5678967	(AL109630) BACR7A4.ai [Drosophila melanogaster]	1.4
1018	3023956	VEGETATIBLE INCOMPATIBILITY PROTEIN HET-E-1 >gi 607003 (L28125) beta transducin-like protein	5E-28
1019	3882321	(AB018343) KIAA0800 protein [Homo sapiens]	e-105
1020	1655907	(U65891) protein tyrosine phosphatase CRYP-2 [Gallus gallus]	2.5
1021	3540219	(D87686) KIAA0017 protein [Homo sapiens]	8E-70
1022	1352368	ENTEROPEPTIDASE PRECURSOR enterokinase [Bos taurus]	7.7
1023	4506701	ribosomal protein S23 S23 >gi 543449 pir  S41955 ribosomal protein S23 - rat protein [Homo sapiens] >gi 453281 emb CAA54584  (X77398) ribosomal protein S23 [Rattus norvegicus]	9E-15
1024	5059323	(AF151522) hairy and enhancer of split related-1 [Homo sapiens]	0.31
1025	3329139	(AE001339) ABC Transporter Membrane Protein [Chlamydia trachomatis]	1.2

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
1027	2133726	synapse-associated protein sap47-1 - fruit fly ( <i>Drosophila melanogaster</i> ) >gi 929571 emb CAA56416  <i>melanogaster</i> ]	8E-25
1028	4507009	solute carrier family 25 member 14 >gi 3851540 (AF078544) brain mitochondrial carrier protein-1 [ <i>Homo sapiens</i> ] >gi 4678718 emb CAB41251.1  protein-1 (BMCP1)) [ <i>Homo sapiens</i> ]	e-121
1029	2662336	(D55702) ORF2 [ <i>Bombyx mori</i> ]	8.2
1030	5454104	transcriptional adaptor 2 complex) >gi 3335555 (AF069733) ADA3-like protein [ <i>Homo sapiens</i> ]	e-108
1031	1363044	mucin (clone pGM7-1) - bovine repeats, clone pGBM7-1} [cattle, gall-bladder, Peptide Partial, 600 aa] [ <i>Bos taurus</i> ]	0.21
1032	3874427	(Z78416) predicted using Genefinder; Similarity to <i>S.pombe</i> RAD18 gene (TR:E198069); cDNA EST CEESX52R comes from this gene; cDNA EST EMBL:D32785 comes from this gene; cDNA EST EMBL:D35528 comes from this gene; cDNA EST EMBL:D37...	6E-09
1033	3287732	GLYCYL-GLYCINE ENDOPEPTIDASE ALE-1 PRECURSOR >gi 1890068 dbj BAA13069  (D86328) ALE-1	1.7
1034	2143767	glycoprotein - rat >gi 986943 (L08134) glycoprotein [ <i>Rattus norvegicus</i> ] <i>norvegicus</i> ]	0.057
1035	4929167	(AF142440) BC1 [Indian mungbean yellow mosaic geminivirus]	0.63
1036	2224593	(AB002324) KIAA0326 [ <i>Homo sapiens</i> ]	2E-41
1037	3820909	(AJ010642) Dof protein [ <i>Drosophila melanogaster</i> ]	1.9
1038	4586844	(AB015633) type II membrane protein	3E-09
1039	3287688	(AC003979) Contains similarity to ycf37 gene product gb 1001425 from <i>Synechocystis</i> sp. genome gb D63999. ESTs gb T43026, gb R64902, gb Z18169 and gb N37374 come from this gene. [ <i>Arabidopsis thaliana</i> ]	0.036
1040	4557651	heat shock transcription factor 4 transcription factor 4 [ <i>Homo sapiens</i> ]	3E-23
1041	4557651	heat shock transcription factor 4 transcription factor 4 [ <i>Homo sapiens</i> ]	3E-23

**Table 2B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
1042	4557471	coat assembly complex AP1 sigma-1A subunit >gi 231555 sp Q00382 AP19_MOUSE CLATHRIN COAT ASSEMBLY PROTEIN AP19 (CLATHRIN COAT ASSOCIATED PROTEIN AP19) (GOLGI ADAPTOR AP-1 19 KD ADAPTIN) (HA1 19 KD SUBUNIT) (CLATHRIN ASSEMBLY PROTEIN COMPLEX 1 SMALL CHAIN) >gi 109674 pir  A40535 clathrin-associated protein 19 - mouse >gi 191983 AP-1 clathrin adaptor complex [Homo sapiens]	4E-73
1043	3581887	(AL031540) internalin- related, Leucine rich repeat containing protein [Schizosaccharomyces pombe]	3.6
1044	2492678	ACTIN-LIKE PROTEIN ARP8 YOR141c - yeast (Saccharomyces cerevisiae)	6E-21
1052	2495704	HYPOTHETICAL PROTEIN KIAA0129 product is novel. [Homo sapiens]	0.0002
1054	4680703	(AF132966) CGI-32 protein [Homo sapiens]	1E-91
1055	1078718	reverse transcriptase - Trypanosoma cruzi transcriptase [Trypanosoma cruzi]	1.1
1056	728835	!!!! ALU SUBFAMILY SC WARNING ENTRY	0.16
1057	1932813	(U88065) dsRNA adenosine deaminase [Xenopus laevis]	5.4
1058	1363325	RNA helicase HEL117 - rat >gi 897915 (U25746) RNA helicase [Rattus norvegicus]	3E-91
1059	631772	TEG-261 protein - mouse	2E-47
1062	2506774	KERATIN, TYPE II CYTOSKELETAL 8	2E-42
1063	4406551	(AF131739) Unknown [Homo sapiens]	2E-82
1064	4678836	(AL049701) hypothetical protein [Homo sapiens]	3E-13
1065	4567179	(AC007228) BC37295_1 [Homo sapiens]	0.000005
1066	3953593	(AB020542) Zinc finger protein s11-6 [Mus musculus]	1E-32
1068	3170180	(AF039690) antigen NY-CO-8 [Homo sapiens]	0.26
1069	4678836	(AL049701) hypothetical protein [Homo sapiens]	3E-13
1070	2558501	(D63850) hepatoma-derived growth factor	3E-24
1071	3327220	(AB014603) KIAA0703 protein [Homo sapiens]	5E-53
1072	5453601	cartilage-associated protein cartilage-associated protein (CASP) [Homo sapiens]	e-125
1073	3237304	(U91561) pyridoxine 5'-phosphate oxidase [Rattus norvegicus]	3E-56
1074	4508041	zinc finger protein 91 (HPF7, HTF10) >gi 549839 sp Q05481 ZN91_HUMAN ZINC FINGER PROTEIN 91 (ZINC FINGER PROTEIN HTF10) (HPF7)	1E-21

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACC'N	DESCRIP.	P VALUE
1075	961444	(D63876) KIAA0154 gene product is related to mouse gamma adaptin. [Homo sapiens]	1E-20
1077	1707274	(U80931) strong similarity to class-III of pyridoxal-phosphate-dependent aminotransferases	7E-31
1078	1546779	(U28789) PACT [Mus musculus]	0
1079	5052075	(AF074331) PAPS synthetase-2	8E-63



Table 3

SEQ ID NO:	Profilename	Start	Stop	Direction
97	Kazal	25	243	for
227	helicase_C	212	389	for
242	EFhand	275	310	for
450	SH3	44	226	for
473	Zincfing_C2H2	211	273	for
505	WD_domain	80	178	for
512	Zincfing_C2H2	147	209	for
523	PDZ	168	395	for
527	ras	18	395	for
545	ANK	311	393	for
547	Ets_Nterm	7	237	for
606	WW_domain	120	209	for
635	protkinase	47	400	for
635	mkk	41	394	for
636	trypsin	147	381	for
640	Zincfing_C2H2	122	184	for
693	Zincfing_CCHC	135	185	for
721	WD_domain	18	116	for
805	Zincfing_C3HC4	263	406	for
918	BZIP	51	224	for
919	Zincfing_C2H2	125	187	for
925	FKH	9	230	for
971	Zincfing_C2H2	202	264	for
973	Zincfing_CCHC	262	309	for
980	PDZ	241	468	for
992	mkk	0	708	for
992	protkinase	121	711	for
995	trypsin	202	760	for
984	trypsin	202	760	for
1018	WD_domain	18	116	for
1028	pr55	24	1293	for
1035	ATPases	74	616	for
1036	Zincfing_C2H2	122	184	for
1053	14_3_3	63	619	for
1058	helicase_C	212	448	for
1058	ATPases	59	442	for
1063	Zincfing_C2H2	211	273	for
1066	Zincfing_C2H2	125	187	for
1072	ATPases	808	1284	for
1078	protkinase	309	1022	rev
1078	neur_chan	12	508	rev
1078	Zincfing_CCHC	262	309	for
1078	Zincfing_C3HC4	557	679	for

Table 13			
ES55	ES56	ES57	ES58
M00004170C:H06	M00004036B:C11	M00004288D:E07	M00023298B:G07
M00004170D:C06	M00004064B:G03	M00004318D:D07	M00026819B:E02
M00004171D:H10	M00004067C:E05	M00004356C:D02	M00026914C:H10
M00004174B:B12	M00004099C:F04	M00004391C:F12	M00027023B:H12
M00004175D:G10	M00004103A:E06	M00004386C:C03	M00027085A:G10
M00004176A:E07	M00004128B:H11	M00004414D:C11	M00027248D:D01
M00001352D:A09	M00004167A:H04	M00004422C:A01	M00027546B:A11
M00001345C:B10	M00004158C:B01	M00004427D:H04	M00023299B:A01
M00001382D:F03	M00004165B:E03	M00004502B:G05	M00026857A:F02
M00001419A:E01	M00004181A:B05	M00004495D:A05	M00026858C:H05
M00001437D:A12	M00003993C:G11	M00005364C:A02	M00026861A:B05
M00001441D:G02	M00004046C:A04	M00005375B:H03	M00026846C:B01
M00001601D:A03	M00004034A:G03	M00005420C:E10	M00027131A:H02
M00001677B:G01	M00004036C:E10	M00005413B:B02	M00027396A:F07
M00001678A:B10	M00004043C:A06	M00005438D:A08	M00023301B:C01
M00001675C:F05	M00004067C:C10	M00005453B:B06	M00023321B:F06
M00001360D:C12	M00004068A:A03	M00005446B:D10	M00023401C:D12
M00001389C:E01	M00004069A:E04	M00005493D:H12	M00026941C:E11
M00001390C:H05	M00004071C:B06	M00005476D:A11	M00027067A:B02
M00001399B:C04	M00004127C:C08	M00005482A:D08	M00027036B:D07
M00001507A:H06	M00004157C:E06	M00005485C:F09	M00027329A:H04
M00003747C:G12	M00004165D:H12	M00005563C:D05	M00027740C:C05
M00001358B:F12	M00003995B:C06	M00005569B:E04	M00023340A:A10
M00001360B:F09	M00004090A:B11	M00005621B:C09	M00026942C:A06
M00001392A:F02	M00004084C:F05	M00005628D:A10	M00027066A:A04
M00001397D:G04	M00004087A:H06	M00005629B:G06	M00027072C:A11
M00001463C:E12	M00004110A:G03	M00004866C:H08	M00027028A:B06
M00001531B:A03	M00004117D:F06	M00004872C:G03	M00023282B:H09
M00001507D:F09	M00004150A:B09	M00005358B:D10	M00023295B:C03
M00001513B:F05	M00004140C:D04	M00005385D:B08	M00026811A:H01
M00001514B:C02	M00004175D:D05	M00005392C:B03	M00026850B:F07
M00001576C:E03	M00004176A:H05	M00005395C:C11	M00026913D:G11
M00003756D:B09	M00004170C:A12	M00005396A:C01	M00026936D:D01
M00003907C:D02	M00004237B:G01	M00005435B:F01	M00027083C:F06
M00003926A:D01	M00004253A:E02	M00005464B:B08	M00027152D:H06
M00003928D:A04	M00003997D:G03	M00005505B:D10	M00027209D:B09
M00003935D:E04	M00003998C:D04	M00005509D:G05	M00027339D:E10
M00003985B:F06	M00004027C:E06	M00005614A:B07	M00027282D:G01
M00004063B:B12	M00004059D:A09	M00005721C:A12	M00023287A:D08
M00004101A:C12	M00004087B:D05	M00005705D:G09	M00026928A:B06
M00004104C:F06	M00004114C:B09	M00005709D:H05	M00027028B:C12
M00004107A:E02	M00004140B:C02	M00004859D:D01	M00027115B:G04
M00004108B:D04	M00004149C:D11	M00005342D:E04	M00027096B:A01

Table 13			
ES55	ES56	ES57	ES58
M00003856A:H10	M00004168D:F05	M00005363D:C05	M00027154B:D05
M00003908C:C04	M00004176B:H09	M00005353C:H01	M00027164A:A09
M00003895C:F05	M00004173A:D03	M00005386C:G01	M00027218C:D06
M00003939B:C02	M00004209B:G01	M00005388B:B02	M00023343B:C08
M00003997A:C08	M00004253D:D04	M00005396C:H04	M00026871C:F12
M00004066D:C02	M00004275A:H07	M00005434A:F11	M00026882A:E07
M00004105C:C05	M00004269C:B10	M00005434C:E02	M00027067B:E09
M00003788B:C08	M00004298A:H09	M00005473C:F02	M00027062C:C04
M00003788C:C05	M00004347A:F10	M00005459B:A01	M00027131C:E07
M00003835B:C05	M00004337A:A07	M00005469A:D10	M00027137D:F05
M00003820B:G04	M00004372A:A08	M00005505D:H08	M00027204B:A08
M00003888C:G08	M00004406D:E11	M00005509B:E10	M00027188A:D12
M00003977D:H04	M00004449B:B05	M00005616B:E11	M00027190B:F06
M00004029D:H03	M00004507A:F11	M00005589B:H12	M00027193A:F07
M00004034A:A05	M00004276A:C06	M00005721D:B03	M00022362D:G11
M00004140D:E03	M00004270C:H05	M00005698A:H12	M00007947B:F07
M00003775C:C01	M00004343A:G07	M00006613C:C02	M00007948B:B07
M00003776B:F08	M00004344B:C06	M00006617A:A06	M00008003B:F09
M00003839D:C03	M00004373D:G10	M00006584D:D01	M00008054C:C03
M00003818C:D02	M00004368A:G11	M00006594B:D05	M00008075D:B01
M00003820C:E08	M00004371B:A05	M00006600D:G07	M00022074A:F05
M00003822A:D02	M00004403A:A02	M00006631D:G09	M00007943C:B02
M00003877C:G01	M00004445D:A04	M00006635A:C01	M00008002B:F09
M00003880A:G10	M00004447A:A10	M00006726D:H10	M00021653C:B06
M00003919D:F01	M00004603D:D09	M00006874D:E01	M00021851D:H06
M00003960D:E09	M00004326D:D06	M00006882C:D03	M00022015D:C11
M00004081A:E11	M00004323B:G12	M00006925B:B02	M00022018B:E09
M00004085B:D12	M00004350A:C04	M00006946B:C08	M00022095C:F03
M00004142C:A06	M00004357A:B10	M00006949B:C07	M00007996C:B11
M00004135D:D01	M00004360B:B08	M00007026A:A03	M00007977B:C11
M00004198B:G08	M00004385D:D06	M00006712A:F01	M00008088D:B01
M00004185B:H03	M00004414D:A01	M00006727A:H12	M00021676B:B12
M00004187A:B05	M00004415A:A01	M00006815D:D11	M00021972A:C10
M00004251B:H12	M00004423A:B05	M00006805D:H12	M00022099C:A10
M00004232D:G11	M00004423C:F03	M00006934B:B11	M00022106D:B06
M00004240A:D03	M00004426B:H06	M00007019B:G01	M00007978B:C04
M00004285C:B06	M00004504C:G07	M00007038D:D01	M00008053D:E09
M00004292A:C08	M00004466A:E04	M00007041C:C05	M00021669B:G02
M00004335A:G05	M00004498D:A11	M00006630A:E05	M00022118A:D08
M00004240C:A06	M00004292A:F03	M00006623C:G07	M00022251A:F07
M00004249A:C09	M00004280D:D10	M00006694D:G06	M00022235D:F07
M00004335D:D03	M00004286D:D02	M00006668D:B10	M00022240C:B03
M00004378A:H10	M00004870D:E05	M00006688A:F09	M00022406C:G03

Table 13			
ES55	ES56	ES57	ES58
M00004381A:E10	M00004871C:C04	M00006745B:C05	M00022459C:G05
M00004444C:H11	M00004872A:D07	M00006846A:B03	M00022627B:D01
M00004225A:E03	M00005395D:D11	M00006823A:H06	M00022184D:F07
M00004284A:C09	M00005395D:B12	M00006925A:B09	M00022177D:G02
M00004264B:F03	M00005412D:G07	M00006894D:A07	M00022460C:E12
M00004404C:B03	M00005413D:G12	M00006895D:A02	M00022627A:A02
M00004410A:F06	M00005513A:H01	M00006991B:E05	M00022144D:D09
M00004412A:G05	M00005515D:G02	M00006994A:C12	M00022203B:A05
M00001340C:A08	M00005607A:C08	M00007046D:E10	M00022214C:C11
M00001340C:D09	M00005366D:E12	M00006577A:B01	M00022252C:A04
M00001395D:B04	M00005618C:H11	M00006630A:E09	M00022420B:C08
M00001466C:H11	M00005708C:D11	M00006619A:G11	M00022640B:G10
M00001528D:B12	M00005810B:C07	M00006704A:C11	M00022641C:H03
M00001517C:A10	M00006795C:B12	M00022127C:E01	M00022652B:G06
M00001561A:G10	M00006755C:C03	M00022128A:C05	M00022216C:H02
M00001565C:F06	M00006756D:G07	M00022176D:F05	M00022199A:F09
M00001569A:H01	M00006779D:F03	M00022214A:H05	M00022214A:D01
M00001341A:H10	M00004821D:C03	M00022220B:B06	M00022273A:B03
M00001375C:C11	M00005358A:H03	M00022278C:E04	M00022256D:G11
M00001397C:F01	M00005480C:A04	M00022282A:A11	M00022261C:D06
M00001431A:F03	M00005481C:H05	M00022260C:H07	M00022490B:G12
M00001457D:E08	M00005490B:B02	M00022263A:C01	M00022648D:G11
M00001505C:C10	M00005820A:H11	M00022377A:E02	M00022709A:G02
M00001615A:D01	M00006621B:B06	M00022399C:B02	M00022701C:A05
M00001618C:E01	M00006752C:D04	M00022056C:D12	M00022826A:C08
M00001358C:D09	M00006757D:H04	M00022087A:D01	M00022963A:E07
M00001360B:B01	M00005000A:H05	M00022088B:E05	M00022904D:D04
M00001391C:B05	M00005296D:G03	M00022090D:B03	M00023095C:A09
M00001389B:B12	M00005378B:B04	M00022094A:A09	M00022684C:C12
M00001485A:C04	M00005461C:D11	M00022096B:D10	M00022765B:E03
M00001559D:E02	M00005464D:D07	M00022176A:F02	M00022898C:H07
M00001545D:F12	M00005657B:F11	M00022217B:E03	M00022902B:F10
M00001549C:F10	M00006596D:H02	M00022259A:D04	M00023003A:H01
M00001579C:E07	M00005826B:F10	M00022381B:C12	M00022768A:A10
M00001630A:E08	M00006577B:F01	M00022399D:A07	M00022834A:H02
M00001386B:E01	M00006582A:F12	M00022401C:G07	M00023002A:C02
M00001389A:F03	M00006664A:C05	M00022407D:G07	M00023003C:C10
M00001418C:F06	M00006678C:B07	M00022417B:C01	M00023012A:C06
M00001454D:H09	M00006840A:A12	M00022435C:C05	M00007973D:B03
M00001442D:D09	M00005020B:D10	M00022471D:A05	M00007939A:F06
M00001450D:H12	M00005296B:H07	M00022464D:F12	M00007941D:D07
M00001479D:B10	M00005403A:D12	M00022469A:A05	M00007948D:F08
M00001598C:F02	M00005376B:E08	M00022500B:D01	M00008012D:H04

Table 13			
ES55	ES56	ES57	ES58
M00001594A:H01	M00005378C:B12	M00022506D:B03	M00008014D:A11
M00001657D:D07	M00005397A:G08	M00022542A:B06	M00008048C:A08
M00003772C:F12	M00005449D:D04	M00022527D:A09	M00008099A:C12
M00003844D:B02	M00005465A:A07	M00022568B:D03	M00021668D:G09
M00003845B:A04	M00005648C:C11	M00022561D:E06	M00021861C:B08
M00003845C:F08	M00006595C:B08	M00022687C:C11	M00021980A:F03
M00003848A:E08	M00006816D:D08	M00022695D:B02	M00007931A:B07
M00003880C:D06	M00006835D:C08	M00022425A:F11	M00007948C:G01
M00001647D:A02	M00006914C:D07	M00022434D:B06	M00007969B:E10
M00001655C:F07	M00007177A:G07	M00022460D:C07	M00008012B:C05
M00003804D:F12	M00006920B:H07	M00022510A:B09	M00008012D:E07
M00003884C:G09	M00007161C:D12	M00022501D:A09	M00008014C:H01
M00003916D:A10	M00006968D:H02	M00022541D:G06	M00008016C:E06
M00003943B:C12	M00006936C:G11	M00022527B:H05	M00008052C:G11
M00003935A:C04	M00006945D:A07	M00022538D:B02	M00008054C:E07
M00003937D:F09	M00007047C:H04	M00022559D:F10	M00008093C:G08
M00001683B:F12	M00007065D:A03	M00022569D:H03	M00021614A:C09
M00001669B:H04	M00007079D:H01	M00022601A:A09	M00008094D:C02
M00003762D:C02	M00006968A:H05	M00022604A:F06	M00021667C:G10
M00003788D:E06	M00007078B:H04	M00022684B:F11	M00021674A:B07
M00003824A:B11	M00007186A:A12	M00022702A:D10	M00021846B:F05
M00003865B:D10	M00004852B:H08	M00022691A:G01	M00021847B:A09
M00003870C:H03	M00005382A:G09	M00022696A:H03	M00021963C:H04
M00003901B:C02	M00005418C:B09	M00022444B:C04	M00007985C:G07
M00003893A:D03	M00005420C:E03	M00022447A:H06	M00008001D:F11
M00003931A:G01	M00005450C:G09	M00022488C:H02	M00007992A:G04
M00003973A:D09	M00005444D:D01	M00022522B:A05	M00008000D:B06
M00001660A:B10	M00005494C:F08	M00022513C:G04	M00008001A:G11
M00003761C:C05	M00005479C:A05	M00022517C:B01	M00008044C:A05
M00003829C:G07	M00005486A:F07	M00022546B:F12	M00008085B:G01
M00003833D:F11	M00005538C:H11	M00022591C:F03	M00008082B:C05
M00003879D:A09	M00005648C:E10	M00022617B:A01	M00008083A:H11
M00003880B:B08	M00005621A:B05	M00022681D:H10	M00021624B:E11
M00003861D:G10	M00004847D:G01	M00022659B:C01	M00021689A:G05
M00003876C:G11	M00005342B:G01	M00022664C:G10	M00021865B:F06
M00003877C:C11	M00005305A:H01	M00022711B:A05	M00021879B:C11
M00003902C:D02	M00026906B:G03	M00022704A:H08	M00021958A:A03
M00003933A:B04	M00026872A:C10	M00022449D:B05	M00021945A:B04
M00003923D:A03	M00026964C:H02	M00022548A:F02	M00021981D:A11
M00003989D:A02	M00026982C:D08	M00022590D:E08	M00007987A:D10
M00003991A:D05	M00027069D:F02	M00022622A:E08	M00007998C:B04
M00004030C:E05	M00027042D:E02	M00022655A:F09	M00008001B:E11
M00004048A:E10	M00027056B:H07	M00022664A:E04	M00008045A:B05

Table 13			
ES55	ES56	ES57	ES58
M00006680D:A01	M00027137C:A03	M00022720A:C01	M00008023A:B03
M00006688C:C12	M00027184D:H02	M00022722D:C07	M00008027D:H09
M00006740A:A06	M00027189C:D04	M00022746D:D05	M00008044B:F07
M00006757A:C09	M00027196A:A10	M00022772A:A06	M00008089C:B08
M00006859D:E11	M00027357D:A02	M00022813C:B09	M00021620D:B06
M00006917B:C05	M00027369A:B03	M00022853D:C05	M00021624B:D03
M00006919A:H12	M00027439B:A09	M00022843A:D02	M00021628C:B09
M00006993B:F02	M00027393D:F01	M00022844C:A01	M00021680D:H08
M00007093C:C11	M00027557D:B06	M00022968D:G06	M00021687C:A04
M00007047D:C02	M00027502C:H02	M00023023B:A05	M00021696C:E02
M00007064B:E09	M00027507C:C06	M00022716A:C01	M00021698A:H03
M00007121A:G04	M00027529B:B11	M00022725D:G05	M00021864C:C07
M00007107C:D02	M00027438D:A03	M00022817D:B09	M00021958A:A04
M00007178D:A10	M00027388A:G05	M00022848D:H09	M00021949D:A05
M00007156D:E11	M00027396C:B06	M00022884D:A07	M00021951B:A01
M00007172D:H03	M00027551C:B07	M00022983A:H04	M00022001B:H10
M00007175D:G02	M00027518B:B07	M00023034B:B10	M00022001D:E06
M00007121D:A11	M00027528A:G03	M00023038D:D04	M00022071D:C08
M00007101C:H01	M00027759B:E11	M00022743C:G05	M00022078B:B04
M00007104D:D10	M00027728A:B03	M00022734C:A03	M00022113B:A12
M00007116A:C08	M00027484A:G03	M00022737D:B02	M00022138C:B07
M00007152A:A10	M00027752B:E05	M00022801A:G04	M00022152A:G05
M00007179B:H04		M00022838B:E05	M00022158C:C08
M00007157B:B04		M00022856A:B09	M00022192B:H07
M00007167C:B10		M00022902C:F11	M00022233C:D11
M00007175B:B11		M00022893D:C06	M00022252A:C01
M00007177B:C02		M00022922D:G06	M00022370A:G07
M00007141A:G08		M00022986B:C02	M00022300A:A05
M00007196D:D02		M00023002D:C12	M00022386D:C04
M00007145C:B05		M00023096C:A03	M00022072D:E12
M00007126D:H01		M00023097A:C03	M00022102D:A10
M00007140C:G12		M00022743C:G06	M00022207C:C01
M00007200A:B12		M00022736B:B03	M00022249C:G09
M00007203C:E06		M00022737B:F12	M00022383C:F05
		M00022831C:F11	M00022384B:E06
		M00022836C:A07	M00022067A:B03
		M00022854D:C04	M00022056B:G12
		M00022860A:A07	M00022084B:C03
		M00022861C:B04	M00022087D:F12
		M00023096A:F03	
		M00023096D:B11	
		M00023097C:D10	

**Table 14**

<b>ES59</b>	<b>ES60</b>	<b>ES61</b>	<b>ES62</b>
M00001418A:A02	M00001477A:G02	M00004450A:G07	M00005515B:B08
M00003877C:A08	M00003853C:A09	M00004353D:C06	M00005385B:A10
M00003977C:D01	M00001694B:H12	M00004406A:H12	M00005516D:F12
M00004295A:C02	M00001664D:E02	M00004048C:C02	M00005822D:C05
M00001383C:C04	M00003847B:H01	M00004170B:G04	M00004841C:H03
M00001500A:A02	M00001631D:G08	M00004108C:D07	M00005810B:G02
M00003880B:D03	M00004498D:F02	M00004125B:A02	M00007107A:H08
M00003803B:G12	M00001563A:F04	M00004109A:B07	M00004825A:G12
M00003819D:B02	M00001558D:E02	M00004123B:G05	M00005327C:G08
M00004178B:F07	M00004278C:H11	M00004152A:F03	M00005390C:E05
<b>ES63</b>	<b>ES64</b>	<b>ES65</b>	<b>ES66</b>
M00005520A:H11	M00006790D:F10	M00027175D:A05	M00026949A:F04
M00006814D:D09	M00006627C:C02	M00026910C:C05	M00023432D:F09
M00006918D:G08	M00027462D:A12	M00027280D:H01	M00027178B:E04
M00007197D:D12	M00026972A:F04	M00023289D:E06	M00027225B:D03
M00005497C:G08	M00027592D:C05	M00023373A:D01	M00023340B:B07
M00007109D:G01	M00026945B:C10	M00027231A:D01	M00027283C:H12
M00005377C:F07	M00027231C:D08	M00023321A:F07	M00027085C:H12
M00006813B:E04	M00027083D:F06	M00027266C:G12	M00027234C:B05
M00005825A:A10	M00027142A:C01	M00023398D:F10	M00023390A:C04
M00005416B:A01	M00027607A:A09	M00027603C:E02	M00026810A:H04
<b>ES67</b>	<b>ES68</b>	<b>ES69</b>	<b>ES70</b>
M00023340B:H12	M00027642C:D11	M00022714B:D04	M00022709A:C01
M00027237C:D04	M00027202B:B09	M00022838A:H05	M00022413B:D07
M00026809C:D10	M00027459A:G12	M00022392C:H06	M00022467C:H07
M00027386D:C02	M00027250A:C04	M00022363C:D03	M00022561B:B09
M00027343B:H05	M00027499B:G02	M00022205A:C02	M00022214C:E09
M00027356A:H02	M00027053C:B06	M00022717C:F05	M00022697A:C08
M00027363D:A08	M00027598C:D06	M00008015B:D08	M00022682A:F10
M00027364D:E08	M00006989C:B01	M00021625B:G07	M00021841A:E11
M00027618A:B08	M00006837B:H12	M00008100D:C08	M00021691B:E04
M00027628D:D08	M00007202A:A09	M00022669D:G07	M00022477C:C07

**Table 14**

<b>ES71</b>	<b>ES72</b>	<b>ES73</b>	<b>ES74</b>
M00022134D:D12	M00008028D:B01	M00022513C:E10	M00023363C:A04
M00022705B:F08	M00021931B:F04	M00022518C:C04	M00001401B:A02
M00022903D:H02	M00008097C:E04	M00022544C:D08	M00008023C:A06
M00022915C:C09	M00008082B:H10	M00022785C:B10	M00022077D:A12
M00007965C:B02	M00008006A:H02	M00022525C:E09	M00023284B:G06
M00022368C:C11	M00022167B:H02	M00022641D:F08	M00023369D:C05
M00007937C:E08	M00022509D:A12	M00022923A:A09	M00023413D:F04
M00021852C:D12	M00022169A:E11		M00026905A:G11
M00008000D:G11	M00022184D:H07		M00027169D:H06
M00021908B:F03	M00022441B:A06		M00005434D:H02



We Claim:

1. A library of polynucleotides, the library comprising the sequence information of at least one of SEQ ID NOS:1-1079.

5

2. The library of claim 1, wherein the library is provided on a nucleic acid array.

3. The library of claim 1, wherein the library is provided in a computer-readable format.

10

4. The library of claim 1, wherein the library comprises a polynucleotide corresponding to a gene differentially expressed in cell of high metastatic potential relative to a control cell, wherein the control cell is a normal cell or a cell of low metastatic potential, and wherein the sequence is selected from the group consisting of SEQ ID NOS:350, 571, 781, 778, 756, 779, 691, 686, 916, and 969.

15

5. The library of claim 1, wherein the library comprises a polynucleotide corresponding to a gene differentially expressed in a cancer cell of low metastatic potential relative to a control cell, wherein the control cell is a normal cell or a cell of high metastatic potential, and wherein the sequence is selected from the group consisting of SEQ ID NOS:34, 57, 103, 110, 113, 189, 214, 359, 521, 532, 533, 536, 547, 549, 554, 555, 558, 561, 562, 572, 582, 584, 587, 589, 590, 591, 592, 599, 603, 607, 609, 623, 624, 635, 636, 637, 641, 646, 647, 648, 650, 653, 654, 656, 657, and 661.

20

6. An isolated polynucleotide comprising a nucleotide sequence having at least 90% sequence identity to an identifying sequence of SEQ ID NOS:1-1079 or a degenerate variant or fragment thereof.

25

7. A recombinant host cell containing the polynucleotide of claim 6.

30

8. An isolated polypeptide encoded by the polynucleotide of claim 6.

9. An antibody that specifically binds a polypeptide of claim 8.

10. A vector comprising the polynucleotide of claim 6.

35

11. A polynucleotide comprising the nucleotide sequence of an insert contained in a clone deposited as ATCC accession number xx, or xx.

12. A method of detecting differentially expressed genes correlated with a cancerous state of a mammalian cell, the method comprising the step of:

detecting at least one differentially expressed gene product in a test sample derived from a cell suspected of being cancerous, where the gene product is encoded by a gene corresponding to a sequence of at least one of SEQ ID NOS: 34, 57, 100, 103, 110, 113, 189, 209, 214, 316, 350, 359, 370, 521, 532, 533, 536, 547, 549, 554, 555, 558, 561, 562, 571, 572, 582, 584, 587, 589, 590, 591, 592, 599, 603, 607, 609, 623, 624, 635, 636, 637, 641, 645, 646, 647, 648, 650, 653, 654, 656, 657, 661, 781, 778, 756, 779, 691, 686, 854, 916, and 969;

wherein detection of the differentially expressed gene product is correlated with a cancerous state of the cell from which the test sample was derived.

## HUMAN GENES AND GENE EXPRESSION PRODUCTS

### Abstract

5 This invention relates to novel human polynucleotides and variants thereof, their encoded polypeptides and variants thereof, to genes corresponding to these polynucleotides and to proteins expressed by the genes. The invention also relates to diagnostic and therapeutic agents employing such novel human polynucleotides, their corresponding genes or gene products, e.g., these genes and proteins, including probes, antisense constructs, and antibodies.

**DECLARATION FOR PATENT APPLICATION**

As a below-named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled *Human Genes and Gene Expression Products*, the specification of which is filed herewith.

I hereby state that I reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the Patent Office all information known to me to be material to patentability as defined in 37 CFR §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, §119(a-d) or 365(b) of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)			Priority Claimed	
<u>                    </u> (Number)	<u>                    </u> (Country)	<u>                    </u> (Day/Month/Year Filed)	<u>          </u> Yes	<u>          </u> No

I hereby claim the benefit under Title 35, United States Code, §120 or §119(e) of any U.S. application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior U.S. application in the manner provided by the first paragraph of Title 35, U.S. Code, §112, I acknowledge the duty to disclose to the Patent Office all information known to me to be material to patentability as defined in 37 CFR §1.56 which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

<u>60/102,180</u> (Application SN)	<u>09/28/98</u> (Filing Date)	<u>Pending</u> (Status)
<u>60/102,161</u> (Application SN)	<u>09/28/98</u> (Filing Date)	<u>Pending</u> (Status)
<u>60/102,380</u> (Application SN)	<u>09/29/98</u> (Filing Date)	<u>Pending</u> (Status)
<u>60/103,815</u> (Application SN)	<u>10/08/98</u> (Filing Date)	<u>Pending</u> (Status)
<u>60/105,877</u> (Application SN)	<u>10/27/98</u> (Filing Date)	<u>Pending</u> (Status)

Direct all telephone calls to Robert P. Blackburn at (510) 923-2977. Address all correspondence to:

Robert P. Blackburn  
Chiron Corporation  
4560 Horton Street  
Emeryville, CA 94608

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Title 18, United States Code, §1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Name of 1st inventor: Lewis T. Williams

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: Tiburon, California

Citizenship: United States of America

Post Office Address: 3 Miroflores, Tiburon, CA 94920

Name of 2nd inventor: Jaime Escobedo

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: Alamo, California

Citizenship: Chile

Post Office Address: 1470 Laverna Road, Alamo, CA 94507

Name of 3rd inventor: Michael A. Innis

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: Moraga, California

Citizenship: United States of America

Post Office Address: 315 Constance Place, Moraga, CA 94556

Name of 4th inventor: Pablo Dominguez Garcia

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: San Francisco, California

Citizenship: Chile

Post Office Address: 882 Chenery Street, San Francisco, CA 94131

Name of 5th inventor: Julie Sudduth-Klinger

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: Kensington, California

Citizenship: United States of America

Post Office Address: 280 Lexington Road, Kensington, CA 94707

Name of 6th inventor: Christoph Reinhard

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: Alameda, California

Citizenship: Germany

Post Office Address: 1633 Clinton Avenue, Alameda, CA 94501

Name of 7th inventor: Klaus Giese

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: Berlin, Germany

Citizenship: Germany

Post Office Address: Chausseetraube 92, Berlin 10115, Germany

Name of 8th inventor: Filippo Randazzo

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: San Francisco, California

Citizenship: United States of America

Post Office Address: 690 Chestnut Street, #403, San Francisco, CA 94133

Name of 9th inventor: Giulia C. Kennedy

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: San Francisco, California

Citizenship: United States of America

Post Office Address: 360 Castenada Avenue, San Francisco, CA 94116

Name of 10th inventor: David Pot

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: San Francisco, California

Citizenship: Canada

Post Office Address: 1565 5th Avenue, #102, San Francisco, CA 94112

Name of 11th inventor: Altaf Kassam

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: Oakland, California

Citizenship: United States of America

Post Office Address: 2659 Harold Street, Oakland, CA 94602

Name of 12th inventor: George Lamson

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: Moraga, California

Citizenship: United States of America

Post Office Address: 232 Sandringham Drive, Moraga, CA 94556

Name of 13th inventor: Radoje Drmanac

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: Palo Alto, California

Citizenship: Yugoslavia

Post Office Address: 850 East Greenwich Place, Palo Alto, CA 94303

Name of 14th inventor: Radomir Crkvenjakov

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: Sunnyvale, California

Citizenship: Yugoslavia

Post Office Address: 762 Haverhill Drive, Sunnyvale, CA 94086

Name of 15th inventor: Mark Dickson

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: Hollister, California

Citizenship: United States of America

Post Office Address: 1411 Gabilan Drive, #B, Hollister, CA 95025

Name of 16th inventor: Snezana Drmanac

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: Palo Alto, California

Citizenship: Yugoslavia

Post Office Address: 850 East Greenwich Place, Palo Alto, CA 94303

Name of 17th inventor: Ivan Labat

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: San Francisco, California

Citizenship: Yugoslavia

Post Office Address: 1735 Steiner Street, San Francisco, CA 94115

Name of 18th inventor: Dena Leshkowitz

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: Kiryat Hasavionim, Israel

Citizenship: United States of America/Israel

Post Office Address: 1 Mavoh Habroach, Kiryat Hasavionim, Israel

Name of 19th inventor: David Kita

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: Foster City, California

Citizenship: United States of America

Post Office Address: 899 Bounty Drive, #204, Foster City, CA 94404



Name of 20th inventor: Veronica Garcia

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: Sunnyvale, California

Citizenship: Spain

Post Office Address: 396 Ano Nuevo, #412, Sunnyvale, CA 94086

Name of 21st inventor: Lee William Jones

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: Sunnyvale, California

Citizenship: United States of America

Post Office Address: 396 Ano Nuevo, #412, Sunnyvale, CA 94086

Name of 22nd inventor: Birgit Stache-Crain

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: Sunnyvale, California

Citizenship: Germany

Post Office Address: 345 South Mary Avenue, Sunnyvale, CA 94086

# SEQUENCE LISTING

- <110> Williams, Lewis T.  
 Escobedo, Jaime  
 Innis, Michael A.  
 Garcia, Pablo Dominiguez  
 Sudduth-Klinger, Julie  
 Reinhard, Christoph  
 Giese, Klaus  
 Randazzo, Filippo  
 Kennedy, Giulia C.  
 Pot, David  
 Kassam, Altaf  
 Lamson, George  
 Drmanac, Radoje  
 Crkvenjakov, Radomir  
 Dickson, Mark  
 Drmanac, Snezana  
 Labat, Ivan  
 Leshkowitz, Dena  
 Kita, David  
 Garcia, Veronica  
 Jones, Lee William  
 Stache-Crain, Birgit
- <120> Human Genes and Gene Expression  
 Products
- <130> 2300-1492
- <140> Unassigned
- <141> 1999-09-23
- <150> 60/102,180  
 <151> 1998-09-28
- <150> 60/102,161  
 <151> 1998-09-28
- <150> 60/102,380  
 <151> 1998-09-29
- <150> 60/103,815  
 <151> 1998-10-08
- <150> 60/105,877  
 <151> 1998-10-27
- <160> 1079
- <170> FastSEQ for Windows Version 4.0
- <210> 1  
 <211> 300  
 <212> DNA

<213> Homo sapiens

<400> 1

aattccggtg	ctgtcggcag	acggcctttca	gagtacaata	aacaggggaat	gagaactatt	60
tacatggaat	gttctttctc	atgatgcggt	ggagaagcct	cggccacttg	gttctgccag	120
atgttcctgg	ggttactgta	aatgggaagg	acaggcagag	ctaaacaagg	tttatcattt	180
aaaagtgcct	gtgtgaagtc	acttttgctg	gaaaactgca	gcttgggagc	tttctttgta	240
ttcacatccc	actcttctgt	caagtacact	ttaccctgac	cttatgagtg	gatgaagata	300

<210> 2

<211> 398

<212> DNA

<213> Homo sapiens

<400> 2

cttgaacttc	tgggctcaag	tgattctccc	acctcagcct	cccaaagtgt	tgggattgta	60
ggtgtgaact	actgtgcctg	gccttctaca	tttttttttt	aaccatttca	tagttccott	120
tttctttgaa	cacttgggtc	aaactcactt	ttcttctgga	ttcataattt	ctgatctcac	180
ctattatggt	atagaactga	tatgttacgt	ttgttttcat	tgatgcgtct	gtacttggct	240
tcagagagca	aaacaaggcc	ctgtgagtc	ctgggagcca	gattttggat	caaaataaat	300
cactttctga	caagtgtagt	tgtctagtaa	tggaatgagg	cagtcttctt	aggaagtaat	360
gaattccctg	cacccaaaagg	gagaagctag	cgagccac			398

<210> 3

<211> 424

<212> DNA

<213> Homo sapiens

<400> 3

aaaatacaat	gtctaggagc	tatcccaggg	tcgtgaatcc	tcgagtgcag	gtgggggaagt	60
agggtgatac	ccacctgtga	ccatgacaag	ttttgggagc	cagaaactcg	gatagagttt	120
ctagaacccc	gcateccctc	catactgcct	gaagccctcc	tctggggaga	gtgtcatcac	180
agtaccatgt	ggcatgcgag	tgtcgtggta	atgctccccg	accaaaccac	caaaccgagg	240
gttgggctgc	ttattctcgc	tgcccaataa	tgagatgcag	ataaactagg	aaagaaagga	300
gtttatttct	gtaaccaggt	acggggcgaa	ggcgtggaaa	atatcccaga	ccgactcaga	360
attacagagc	tttccagagc	ttatatacct	tgtaagtgtg	atgtttatgt	gtaaagtgtg	420
catt						424

<210> 4

<211> 411

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(411)

<223> n = A,T,C or G

<400> 4

gctggccagc	atagtgaaac	cctgtctcta	ctaagaatac	aaaaattagc	aggcgtgctg	60
gcgggcacct	gtaatccag	ctgctcggga	ggctgaggca	ggagaattgc	ttgaaccag	120
gaggtggagg	ttgcagtga	ccgagatcat	gctgctgcac	tccagcctgg	gtgacagagt	180
aagactccgt	cttgggagaa	aaaaaaaaaa	anggaagggg	naatnnanat	nccanttttt	240
tntntntaaa	tttaanaaan	ttaaaaatgg	nttttttaaa	ttntntnaaa	ngtttgnaaa	300
tganccataa	nnanncggtt	ngcaaacngg	ccnnggtttt	tgnntncant	nggagancag	360
ggtttnaaac	natcgtngtt	ncnttganaa	atggtnagtt	tttganggca	a	411

<210> 5  
 <211> 390  
 <212> DNA  
 <213> Homo sapiens

<400> 5  
 ggaggccaag gctggaggat tgcttgagat caggagttca agaccagcct gggcaacata 60  
 gttagacctt gtctctatatt ttaaaaaatat aacaagcaca gttgtacacg tcttttagttc 120  
 agctgctcag gaggctgaag tgggaggatc ctttgaaccc aagagtttga ggctgcagca 180  
 agccatgatc acaccactgc actccagcct ggggtgacaga gtaagaccct gtctcaaact 240  
 ttttttaaaa tgaaagaatc caaccttttt ttactctgac ctgcgagagt gcagaggggc 300  
 tggggaacat ttgcagaagc aacagggtacc agccagtgcct ggaaggagct caccctggga 360  
 ggtctcgtca gcctctgtcc ttcattggctg 390

<210> 6  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<400> 6  
 ccgacacttt gggaggccaag ggcaggagga tggcttgaag ccagtagttc aagaccagcc 60  
 tgggcaacat agtaagaccc catctctatg aagaataaaa aaatgagcta ggcgtggtag 120  
 tgcacacctg tagtcctagc tacttgggag gctgaggcag gaggatccct tgagtccagg 180  
 aggttgaggc tgcagtgagc tgtgattgtg ccactgtttt ccagcctggg caatacagtg 240  
 agaccctgtc tcaaaaaaag gaaaaaaaag ctcaaaaagt tctgtgttgc ctttctcttc 300  
 ttagctgatg atgggagaac cagttactac cttctctaac acaggctcca tcctatctct 360  
 tcctctcttc ttgccagtga tgttgccacct gtaaccatct t 401

<210> 7  
 <211> 413  
 <212> DNA  
 <213> Homo sapiens

<400> 7  
 caggatttgc tttttccctg ctttgaagaa aagctgaagt caaatTTTTat gaatactcag 60  
 tagcatccgt caagaaaaaa aaaagaaaaa gaaaaatttg catgtagggg gttctgttct 120  
 caacagtgtg cgcagttttg gggctacagt agggctgagg ccgcacgcca gttccatttc 180  
 acagggttcc tgtttcctag taactgcttc tactcgagcc ttcttcagga aagcccacaa 240  
 tagcaattga gagtaaaatg atttgaaaac gtgggtgtgc tgctgctggg actccaccct 300  
 cagtaacgat caggcattgt tctgtcttcc ttgctcaggg ggggcacact tcaagagatt 360  
 aaatttactg caggataaac agaatgcgtg ttccacagca ggctaataaa acc 413

<210> 8  
 <211> 409  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(409)  
 <223> n = A,T,C or G

<400> 8  
 cccagcagtg tttactgagg acctggnttt ctagaacagg tgtgncctgt cctctttccat 60  
 gttccctggg ggctgggtcag ctccaagttg tgggtggcag anctgngttt ancatgaact 120  
 gactaaagac ccatntggag gcaaataatta agttgccagg actgctttca cttcagggtg 180

attgaaggnc	acatatattgaa	gtacctagaa	tgccagaaaag	tgttntntttg	cccanaaaaac	240
aaatcagaaa	agcctattct	tttttgcaac	nctgttaatg	attactggag	ttcctgaaaa	300
atactttgtg	ccncccttga	agactntgaa	acncgnnttc	cntgggattt	tgctgtaaat	360
nacnntncnn	tggcnctgaa	gnttnccctg	gntgcctagc	tntaaaaaa		409

<210> 9  
 <211> 392  
 <212> DNA  
 <213> Homo sapiens

<400> 9						
accacgccgg	gctaattttt	gtatttttag	aagagatggg	gttccgccat	gttggccggg	60
ctggtctcga	gctcctgacc	tcaggtgatc	cgcccgccctc	ggtctcccaa	agtgctggga	120
ttacaggcaa	taactttatg	tctccccctc	cttatctctg	ggcaaacctt	gtttattctc	180
tactaacttg	gttgtaatct	gttcatcaaa	gtagaccctt	gaatttgta	ttctccaggc	240
tgctgggaca	cgttggagtg	gccttagaag	gctgcaaaat	ggactgatgg	ttctgcctt	300
ccactgacgt	cccaatacga	cttcctaata	ctagggctcc	agttcctgat	accagaatta	360
cagggagaaa	atgtgggttc	tgcaggggtg	tg			392

<210> 10  
 <211> 300  
 <212> DNA  
 <213> Homo sapiens

<400> 10						
aattccggtt	ctgtcgggtc	cttatgccta	taagcgggca	tacaacaggg	gcgcaataaa	60
tgtttggtta	gtgaatgaat	tctttcagaa	ctagatggga	tcttagtcca	actctcttat	120
ttaacgaggt	ccacagaggt	tctgcgattg	tctaagaaag	aaggctgtgt	tcattggcctt	180
tgttgtttac	gtggccctgt	gattctcttg	gctccgtgaa	agtccctgat	cagacattcc	240
ggccatctag	aaaggcatgc	agacaagcca	tccagctggc	atgatcctga	gtccagcttt	300

<210> 11  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(401)  
 <223> n = A,T,C or G

<400> 11						
gactcgggat	ggagatgcc	ttggaatcaa	tcaggcgtct	atgagtcgat	gtgttgccaa	60
tgctactgaa	gcacttggtg	aaagggcctc	acagttcatt	cgctttccag	ctgatgaagc	120
ctccattcag	gctctgaagg	atgaattcta	tgggttggtg	gggatgccag	gggtgatggg	180
ggtggttgac	tgtatccatg	tggccatcaa	ggcaccacat	gctgaagacc	tctcctatgt	240
gaaccgaata	ggcctgcatt	ctataaactg	ctgatggtgt	gcgacattag	agggacacta	300
ntgaccgtng	agacanactg	tcccgggnanc	ctanatgact	gngctgtgct	gcagcagnct	360
tctcagtan	ncancatgaa	gcgganatgc	acaaaaaatc	c		401

<210> 12  
 <211> 403  
 <212> DNA  
 <213> Homo sapiens

<400> 12

atctctgaat	tctgaatagc	tgacaacccc	caatgttatc	cactctgttg	cttttgtctg	60
gaaaactcta	cagtgtttgt	gggatgtccc	caaaggaaag	ctatgttcta	attttatcat	120
ttccatctgt	ctggttatgt	caagttaatt	cagaaagaga	agagacagtg	accaaccctg	180
agaggcctaa	tagggcagag	atggaggcct	gccagacta	ggaggcagcg	gggatagaca	240
gggaatgggg	agaagaaaga	ccccattgg	tttggaatc	aaggagaggg	cggtgacata	300
ttggaccaga	agaggcacta	ccattttaag	gagaggaaag	agaaaactct	ggggtcaggg	360
agagacccta	ccccccctaa	ttatccacat	atatgtaaga	aat		403

<210> 13

<211> 390

<212> DNA

<213> Homo sapiens

<400> 13

caaagggtgaa	gcaggacatg	cctccgccgg	ggggctatgg	gcccacgcac	tacaaacgga	60
acttgccgcg	tcgaggactg	tcgggtcagt	atcactctgc	gccgggggtct	cagagtctgg	120
gcactcgggg	ctcgggggcg	gggttcgggg	gacacaggcg	ggcctcagtt	ttcccggcgg	180
tgtgaccgga	ggcggagccc	ggggatccat	catagcttct	gtaataacgc	taagtgtctg	240
agtttggtga	ggtctttccc	agctcctctt	ccttctcgta	acagcccagg	aaatcgggtcc	300
ctctagttat	ttacgtttta	cagtgggtta	aactgagtca	tagcctgtgc	tctggccctc	360
agccaccctt	ggattttctaa	gatggggaaa				390

<210> 14

<211> 400

<212> DNA

<213> Homo sapiens

<400> 14

ggtaattctt	aagagcgttc	tgacagcttt	tctcgtgctg	tggttgccctc	actggggatt	60
gtacattttc	tctttggccc	agcttttcta	taccacagtt	ctgggtgctct	gctatgttat	120
ttatttcaca	aagttactgg	gttccccaga	atcaaccaag	cttcaaactc	ttcctgtctc	180
cagaataaca	gatctgttac	ccaatattac	aagaaatgga	gcgtttataa	actggaaaga	240
ggctaaactg	acttggagtt	ttttcaaaca	gtctttcttg	aaacagattt	tgacagaagg	300
cgagcgatat	gtgatgacat	ttttgaatgt	attgaacttt	ggtgatcagg	gtgtgtatga	360
tatagtgaat	aatcttggtc	cccttggtgc	cagattaatt			400

<210> 15

<211> 378

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(378)

<223> n = A,T,C or G

<400> 15

aaaaaacatc	tacgagacaa	aggagaggat	gataaaatgc	ccccgctccg	gaagaaacag	60
cgtgggtttg	ttttaagggt	gcagcaagaa	aaggcagaaa	taaaacgtct	tcaagaagcc	120
aataaggcag	ctcggaagga	aagacagctg	attcttaaac	agcaggagga	gatagaaaag	180
atccgacaga	ccaccataaa	actacaggag	aaattgaagt	ctgcagggga	gagtaaattg	240
gactctcata	gtgatgatga	tacaaaggat	aataaggcaa	ccagtcctgg	tccaactgac	300
ttggagaccc	gcagtccttc	tcccatttca	atctccagca	gtgaaactag	cagcattatg	360
cagaaactga	anaaaaatg					378

<210> 16

<211> 300  
 <212> DNA  
 <213> Homo sapiens

<400> 16  
 aattccggtt ctgtcgcttc cgcttggaca tcagctttga aagccaacac atcctcctga 60  
 gaggggacaa gacaagcagg gatatgtggg ccaactggatc tttgccagac ttcccagctg 120  
 cagccaagtt cttaggggttc cgtaagcgct gcatccccag gagcctctgc ctcagtgaagt 180  
 gtccctctgga gcccccaagc ctcacccgcc tctgtgccac tctgaaggac tgcccgggac 240  
 ccctggaact gcaattgtcc tgtgagttcc tgagtgaacca gagcctggag actctactgg 300

<210> 17  
 <211> 415  
 <212> DNA  
 <213> Homo sapiens

<400> 17  
 cttttaacgt tcagcctccc gaagaaagcc aggtgtcagg gcagaagacc gccattcttg 60  
 ccagtaacac tgccagccta cagaggaagc cagatcgggg aagccaggaa gtttttagtga 120  
 agccccagc atgaccctat tgtctcccct ttcaccagaa gcaccagcaa ctggtgaagt 180  
 cttagaaaag tccctgatac accaaaaacc atcccaggaa gccagcatcg tccaagctga 240  
 gaagtccaag ctgagaagcc tgaggctgtg acgtcagcct gctcggcaag aagctggggc 300  
 tgccgcaggg ttgccaggag atagatggct ttgcatacta ttaaaatatt tttgcctgtc 360  
 tctaccaaag aaaaggagga ataagatcgc cccaacatag ttgcatggct gaaga 415

<210> 18  
 <211> 417  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(417)  
 <223> n = A,T,C or G

<400> 18  
 gagcattcta atctggaaga gctgttccaa aaaacataaa cttagtgttg atgaagactt 60  
 ttgtcattat ttgaagaatg acaactgttg gacaacaaaa aatgaaaact tagattgcaa 120  
 cagtgaattca caggtgtttc cctctttgaa taataaagaa ctaataaata tcagaaatgt 180  
 ttcaaaccag gaaagatcaa tggatgttgt agcccgaa caaaaagatg ggggcatatc 240  
 tttattgttt ctattaaaac ggagaatcag atgcaagctg gaatntgaat ggttcncttt 300  
 ctatgattgg gcctcatgga tatactctctg catcagattg gccctaatag attttttaca 360  
 tgggggaggg atngggttata tattatatgg catactctgg ctgacgtggn ctgcctg 417

<210> 19  
 <211> 415  
 <212> DNA  
 <213> Homo sapiens

<400> 19  
 ggacagtctg agccccagga tctccgtgcc cctgattccg gactctgtac agcaatacat 60  
 gagttcttcc tctagaaaac caagccttct ctggctgtta gaaaggaggc taaagaggcc 120  
 gagaacccaa ggtgttgtgt ttgaatcccc tgaggaaaagt gctgatcaat ctcaagctga 180  
 cagagactca aagaaggcca agaaagagaa actttctccc tggcctgcgg accttgaaaa 240  
 gcagccttcc caccatcctt tgcggatcaa gaagcagttg ttcccagatc tctatagcaa 300  
 agaatggaac aaggcagtcg ctttctgtga gtctcaaaag aggggtgacta tgttgacggc 360

ccactgggat tttcagtgc ctttaaggtct acagatgagg agttttatttc tcaaa 415

<210> 20

<211> 415

<212> DNA

<213> Homo sapiens

<400> 20

ccttgtcttg	cctccaaaag	actggacctc	cttttcttct	tcagtggtaa	aaggagtttc	60
ttggtgccac	cgtgggctct	gggcagagac	tgtgccttcc	tcccttttgt	gtctgagtcg	120
ccccgcatgc	tttggcgag	ggagtttggg	ccagagcgat	ctccagcccc	ttccagttca	180
ctggctctgt	gataagggtc	ctggggattt	tgtgtcatgt	tgcttggaag	ccagatggaa	240
ataggccaat	taccattgaa	gtggggcggc	tcctgaatgt	tccaggacca	ggagatttga	300
gctaggcttg	ggaccttctc	tttgctgggt	ctctccctgg	tcctgcctcc	taagaaagag	360
aaaacaagca	aatactctgt	ctacattcag	atacgatgcc	ttacatgaga	agtaa	415

<210> 21

<211> 400

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(400)

<223> n = A,T,C or G

<400> 21

aaagttgcta	aatctggccg	tcctaaacta	gatggcagac	tgagaaatgt	gactccccctc	60
cccagtacct	tgttttctgt	gtcctttag	ccgtggctct	tcagcatatc	tctgtgctgc	120
agacaacaca	ccttcctgat	ggaggtgtcc	ggtaagtttc	caagcagtcg	cgtctctgca	180
gtaccttgac	cgccaggagt	tggtgggttag	gaactggctc	ctgaagtagg	gtgtaaaacta	240
gaggactgtt	ccagggactc	ctacccttac	gcctagctct	gagcaataac	tagtgttcgt	300
gtgtgtctag	ggaagagggg	gaataaccag	tgggttagcc	catgggttca	aanacccccaa	360
ccctcaagtg	gcacctctgt	gaggctgctt	cctgnaactg			400

<210> 22

<211> 403

<212> DNA

<213> Homo sapiens

<400> 22

gctgcttttg	cagtgggtgc	cacctgccac	tgtgcagccc	tactcggctc	agcccttctc	60
ctcagctgtg	agcactgtcc	tcaggagagt	cacagggtct	gacacctgac	tctgagctgg	120
aacagtaggg	gcagggagaa	gacaggtctc	aagaaaaggt	ttttaagaag	tttcatcccc	180
agttaagcag	agtccatcct	tgacttaaat	cccttattac	agcacaactg	tgtatctaata	240
cttacgattt	aggagaatgt	tacctaggac	attttgatgt	gttaagttga	agaaaggtaa	300
ctcgtgtatg	aaccccgagc	catttcctctg	ttgtcctgag	gaggaactcc	aggcctccca	360
tcgtgtgccc	taaggcctcc	tgcgtcctgg	agccctgcct	ccc		403

<210> 23

<211> 403

<212> DNA

<213> Homo sapiens

<400> 23

ccaggctggc	tggttttctt	ggtgaatggt	ctccaggctg	gttatttttc	ttggtgaatg	60
------------	------------	------------	------------	------------	------------	----



taatgtactg	tcttttttaga	gtaagttact	aagctgggta	ctaaatcagg	aatatttttag	120
ttataaaact	ttagattttt	aagaatattg	gccaggcacg	gtggctcaca	cctgtaatcc	180
cagcacgttg	ggaggccaag	gcgggtggat	cacctgagat	cgggagttca	agaccagcct	240
ggccaacatg	gtgaaacccc	gtctctacaa	aagaaaaaaa	tacaaaaatt	agctgggtgt	300
tgtggtgtat	gcctgtaatc	ccaactatct	gggtggctga	ggcacgagaa	tcgcttgagc	360
ttggagggcg	gaggttgacg	tgagctgaga	tcgtgccact	gca		403

<210> 24

<211> 396

<212> DNA

<213> Homo sapiens

<400> 24

cttgtatata	gaagctatct	ctcatctcag	ctgtaaatcc	catctgggct	ggactatatt	60
agattacttt	ggtagcctaa	ccaatgctaa	aattttattaa	tgtcttcata	atagcttgct	120
acttggtaat	gtttataact	gttgtaaaaa	gcatgtgaca	aggccaggca	cgggtggctca	180
tgctgtaat	cccagcactc	tgggaggccg	aggcgggtgg	atcacctgag	gtcaggagtt	240
cgagaccagt	ctggccaata	tgggtgaaac	ccgtctctac	taaaaataca	aaaattagct	300
gggtggtagg	gtggggcgct	gtaatcccag	ctacttgga	ggctgaggca	ggagaatcgc	360
ttgaaccccg	gagggggagt	ttgcagttag	ctgaaa			396

<210> 25

<211> 406

<212> DNA

<213> Homo sapiens

<400> 25

cccagcagtg	tttactgagg	acctgggttt	ctagaacagg	tgtgtcctgt	cctcttccat	60
gttcctctgg	ggctggctag	ctccaagtgt	tgggtggcag	agctgtgttt	cagcatgaac	120
tgactagaga	cccattctga	ggcaaattatt	aagttgccag	gactgctttc	acttcagggt	180
gattgaagga	cacatattga	agtacctaga	atgccagaaa	gtgttctatt	gccccaaaaa	240
caaatcagaa	aagcctattc	ttttttgcaa	cgctgttaat	gattagtggg	gttctgaaat	300
tactttgtgc	cacttggaag	tactgtgaaa	ccgcattcac	tgggattttg	ctgtaattca	360
catccgctgg	actgaagttt	accttgatgt	tagctataag	aaatag		406

<210> 26

<211> 392

<212> DNA

<213> Homo sapiens

<400> 26

gaagaaactc	agagattctc	tgtaacttgc	ccagcattac	cccactgata	gattctgggg	60
attgaatttg	gatccaggtc	ttttcaactc	caagtttcac	cacgtgaact	tgagttggca	120
taagaatcac	ttgaggcttg	gttataatat	aggttctggg	ccctccccag	acctgctaac	180
tccatcacca	gggaaggggc	cctgaaatct	gatgactggt	atgatcaggc	aagtttaaga	240
cattatactc	tactgtatag	cctccttttg	tttaagggtc	tgattctcaa	ggctttccat	300
ttgtaacacc	ttagaggtat	aggcattgat	gccccaaaata	gtaaagaagc	aaatcatgta	360
cagttgacct	ttgaacaacc	tgggggggta	gg			392

<210> 27

<211> 402

<212> DNA

<213> Homo sapiens

<400> 27

ggcggagaaa	gcagaggagg	accggcgggc	caagctttcc	tagcctgaca	gcagccattt	60
------------	------------	------------	------------	------------	------------	----

cggaacgtac	gtcccagccc	tcttttagcta	cttagcgcct	ctggggccga	gaacacctgc	120
tccttggctc	agtctggcgc	caccggcatc	acggaactgt	acttcccaga	gacgtcacac	180
cgggagactt	ccgattcccg	ctcttgagat	tggactctca	cgtgcaggag	ccagtccctcg	240
ctgggctcta	gcgggcttct	gatggaggag	ctactcctct	gggaggacag	aaattagcag	300
cagcctctgt	caccatccaa	agattacaac	ccatgaaacc	attgaatttg	tgccttgat	360
cagaaagcaa	aggagaatga	aaaagcacag	ctaacattgc	tt		402

<210> 28

<211> 389

<212> DNA

<213> Homo sapiens

<400> 28

catggccaat	ttttttatta	gaaaatatgt	gaccaaaga	ttctatagag	taaaaaatca	60
aagcaaaaaca	aaaaccacaa	aaagaccct	gtactataga	aatgtaaaag	ttggctgaac	120
agatagggtc	ttgaaatttc	aggaaacata	taatctcacg	gttcttaaag	attgtcactg	180
tagacatctg	agtaattaat	tttcagttag	taacaggctt	atagaaactt	tgggattatt	240
tacaaatggg	ttaggaaaga	ataaggtata	gtaaaagtaa	tatcctggag	aattctgggc	300
cacctacca	ccataatcaa	ttcagctgta	ctactgaagt	attgtaaaat	ctgatctcta	360
gaggaaaata	cagtattcta	ccttacgtt				389

<210> 29

<211> 395

<212> DNA

<213> Homo sapiens

<400> 29

gaggatattt	aggggtacag	aatcccacgg	tgtgagttgc	agaagggccc	gagcatctgt	60
ctggtggcac	cttctcagga	ggaacctcac	tgaccggcat	gggtgaaccg	ttcagctagg	120
gtcttgggga	aagtcaggca	tctctggagc	ctccgatgtt	gaggataggg	taagagcagc	180
attgtttctct	ggggcccttt	ttccttagta	acacacactc	acccggagcc	agttgtgcct	240
tcttgcaaac	aaacagcttt	caagaagagt	taataaatta	atcttctggg	aaaaagaatc	300
tgctctgcgc	cagcaagacc	tctagcagcc	agggccagag	acttgggcaa	tgtagtcaaa	360
acacacgctg	atcactgtgt	gttactgctg	acgag			395

<210> 30

<211> 402

<212> DNA

<213> Homo sapiens

<400> 30

cctcagcaag	ggcgcggtct	ggtactcgtg	cgtcttttat	cgcctcagtt	tccttccgcc	60
gactagcgcg	cggggcccg	ttctccatcg	cgcgcacggg	agcctagcgc	aatgaggcgg	120
gcagcactgc	ggctttgtgc	cttgggcaaa	gggcagctta	ctcctggaag	aggactgact	180
caaggacccc	agaaccccaa	gaaacaggga	atcttccaca	ttcatgaagt	tcgagataag	240
ttgcggggaga	tagtaggagc	atccacaaac	tggagagacc	atgtgaaggc	aatggaagaa	300
aggaaattac	ttcatagttt	cttggctaaa	tcacaggatg	gactgcctcc	taggagaatg	360
aaggacagtt	atattgaagt	tctcttgctt	tgggcagtga	gc		402

<210> 31

<211> 405

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(405)  
 <223> n = A,T,C or G

<400> 31  
 agacagtctt taaagcaggg gagcagggtta atggataatt tcttgatcag agaaatgagt 60  
 gggttctacat cagagttggt gataaaaagaa aataaaaagca aattcagccc tcaaaaagag 120  
 gcgagccctg ctgcaaagac caaagagaca cggttctgtag aagagatcgc tccagatccc 180  
 tcagaggcta agcgtcctga gccaccctcg acatccactt tgaaacaagt tactaaagtg 240  
 gattgtcctg tttgcggggt taacattcca gaaagtcaca ttaataagca tttagacagc 300  
 tgtttatcac gcgaagagaa gaaggaaagc ctcanaagtt ctgttcacaa aagggaagccg 360  
 ctgnccanaa ctgtatataa tttgctctct gacgtgatta aaaga 405

<210> 32  
 <211> 391  
 <212> DNA  
 <213> Homo sapiens

<400> 32  
 ctacaacaag aaatgcaacg cttgtcactt cagcaggaga tgtaaatgca gatgagagag 60  
 caacaatctt gggtgatttc acctccacaa cctctccac agaaacagat tcgagatttt 120  
 aagccttcta agcaggcagg cctgtcatca gccattgcac cattctcctc agactccct 180  
 cgtcctactc acctatctcc acagtcttct aacaggaaaa gtgcatcttt ttctgttaaa 240  
 agtcaaagga ctccataggcc aaatgagtta aaaataacac ctttgaatcg aaccttgaca 300  
 cctcctcggt ctgtggatag ccttctcctg ttaaggaggt tttcaccaag tcaagttcct 360  
 attcaaacta ggtcatttgt atgttttggg g 391

<210> 33  
 <211> 422  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(422)  
 <223> n = A,T,C or G

<400> 33  
 gcatgttcgc aatgtatgag gaaggtgggg ctctggggct tccagcagat tgaatcgtec 60  
 atgactgacc tggatgcac ctttggcctg accagctccc caatcccagg ccttgagggg 120  
 cgaccagagc gcttacctct ggtgcctgaa tctcctcgga ggatgatgac cgggagccag 180  
 gatgccactt tctccccagg ctccagagcag gctgaaaaga gccctggtec cattgtctct 240  
 cgaactcgga gctgggactc ttccagtcct gttgaccatc ctgagccaga ggctgctagc 300  
 cccaccacca gaactcgccc agtgaccgga agcatgggaa caggagacac ccctggcctg 360  
 gaggtaccat ctagccctct gcggaaagcc aagcgagcng cctctgttct tcacaattcg 420  
 ga 422

<210> 34  
 <211> 402  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(402)  
 <223> n = A,T,C or G

```

<400> 34
cactcctcct ccatgcccag ggaccgcggg tgcttggggc cccgacgcgt acccaggtgc      60
catctggccc tcacctccc ccgtagctgg ctgtgacgcc cgccatgggc aactggggc      120
agtgcagtga gaagacgagg atgcccagca ggctgacaac ggtgcagaac aggcagaact      180
tgatgaccgc ggagccccgg agcctgagct tgttcacaaa gaagccgccc aggaagggtgc      240
cgccaccacc cgctggcacc accagtgtcg ctgacttgaa cccctgcgtc tgcagcttag      300
tgacatcctg taaacctaca ctttccagcc tctcaccaga gcagactgtc ggctacatc      360
ccccacctg caggagggcg gntctttctn tnggccacac ct                        402

```

```

<210> 35
<211> 368
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(368)
<223> n = A,T,C or G

```

```

<400> 35
gtgggcgcct gtaatcccag cactccaga ggctgaggca ggagaatcgc ttgaacctgc      60
gaggcagaga ttgcagtga ccaagatcaa gccattgtac tccagcctgg acaacaagag      120
cgaaactctg tctaanaaat ntcttgtnct cncncccaaa aaaagggttt cactcctnna      180
aaacnaannc atnntaacc aagnngaat ntngntggg acncttntgc aaaaaactgt      240
atctgtcttt antaaatatt nnnctnntnc tttaaaaanc nttnanataa ntngtnccca      300
aactntntnt ggnnattatn tttttaanat ttttngnnc nacantnnct tnnttcaann      360
aaat      368

```

```

<210> 36
<211> 383
<212> DNA
<213> Homo sapiens

```

```

<400> 36
tgttttctg actggaactc agtgctgaaa cgggcctcac agttgctcat cgtcagggat      60
acagaggatc caacgaggat gaagtacaca aggattgtca acctgtgggg gatgactggc      120
cgcacagccc catgaagacc acctgggcag ctctctctc aggccttctg acttgaagaa      180
tgccagctc ctgtggggtc aatacaagaa taacttatgt gcacagaaag aatatttaca      240
attacttgag cttaaattta tgtaattaaa tttattataa ttataaattt aaaaacataa      300
ttttcttttt ctttttcttt ttttgagaca gggctcact ttgtagcccc tgctggaatg      360
caggggacgg tctcggtct cgc                        383

```

```

<210> 37
<211> 396
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(396)
<223> n = A,T,C or G

```

```

<400> 37
gccccacctc cctgtcccga ggcccatggg gaggagtgg ggggatttca gaggtaggca      60
gccagcctc tccgccagcc agtggagggc tcaccgagga gccctgggg ccatggagg      120
gggagcttcc aggagaggcc tgcacactca ctgcccatga aggaagagg ggcaagtgt      180

```

ccgaggaagg	ggatgcctca	cagcaagagg	gctgcacctt	aggttctgac	cccatctgcc	240
tcagtgaag	ccaggtttct	gaggaacang	aaganatggg	agggcaaagc	anctcggncc	300
aggncacgga	cagtgtnaat	gcagaggaga	tcaaggtagn	ccgtattcat	nantntcant	360
gggttggtgg	aggatgntcc	anaacccaat	gnactg			396

<210> 38  
 <211> 344  
 <212> DNA  
 <213> Homo sapiens

<400> 38						
atctcagtgc	tttccctttt	tgaacttccc	ttctattaaa	cttaaaacag	atgtcttaat	60
taatcaggct	gtcttggaag	ggtattgtat	tgggagacaa	ggggcgggtg	tggacctcac	120
cttcaatcca	agttttcaaa	gatattttct	caataactct	aaaagggagg	tgcttgggat	180
taaggtgaca	gtccacttga	tccttttctt	tgtttttagt	tgaatttcag	cagctccatc	240
tgtcttcatt	attgtacttg	agcagtatta	gctgtatgag	ttaattttat	tcagattgaa	300
gatggagggc	tgggttctgc	tcactcagtc	tttttttttt	tttt		344

<210> 39  
 <211> 378  
 <212> DNA  
 <213> Homo sapiens

<400> 39						
ctcctctgtc	cagaggtctt	caacaggaag	atgccagctg	gcaccactgc	actgtgatgg	60
gggcccctct	ctctgctgac	tctgccgttt	ctccaggcct	ccgctcagtg	atgagaccaa	120
gagatcggag	acaagcatgg	tgctgctgct	tctgctgctt	ctccagaaaa	tccctgggac	180
acctttgttc	cagcctgggt	tcctgggctg	ggctcaggaa	agctgccaaa	ttcagtccta	240
tggtgggtcc	aagctgcccc	tgtgctgttt	ctgtcaagcc	aggtgtggac	attccaagtt	300
catatgcgtg	aacaaaagaa	aagaggaacc	cagtggatgt	aacagaaccg	actccagttg	360
aatgtttaga	tttttgct					378

<210> 40  
 <211> 385  
 <212> DNA  
 <213> Homo sapiens

<400> 40						
cgctgctggc	ctggggcttc	ccagccgtct	tggcgttgct	ctctccaacc	cccgcgcgtc	60
cgcgtagaac	gccgctctca	ggctgccgtc	aagctcccgc	ggcactctcc	taggtggccc	120
gacgagacc	agagtgacc	gcgggacgcc	tgtatcgacc	gcgtcctctt	cccaccagcg	180
tgggattcgg	ttgaacgtgg	agtccccagc	aatcttcagt	ctctcaccag	ggccagggac	240
tcgtctgggg	cgcgggggaa	agaagcgtgg	cggggctgta	gatgccgcgt	gagtaggatg	300
cagattgcac	cgctggagcg	cttgacaacc	aaccgagcgt	tggcttaatt	ttgttttccc	360
gcacagcaag	ctctctgtct	ttcaa				385

<210> 41  
 <211> 350  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1) ... (350)  
 <223> n = A,T,C or G

<400> 41  
 ctttgaatac agcgaattaa ctatctacgc tgcctgcaag gggccactta gggcactgct 60  
 agcaggggctt caaccaggaa gggatcaacc caggaaggga tgatcaggag aggcctccct 120  
 gaggacataa tgtgtaagag aggtgagaag tgctcccaag cagacacaac agcagcacag 180  
 aggtctggag gccacacaaa aagtgatgct cgccctgggc tagcctcagc agacctaagg 240  
 catctctact ccctccagag gagccgccca gattcttgca gtggagagga ggtctttcag 300  
 ccncagcang tctggagggc tgataatgaa cctgctanan gttttnacat 350

<210> 42  
 <211> 300  
 <212> DNA  
 <213> Homo sapiens

<400> 42  
 aatttatgac attgtcagaa gataagtgat agatttcata ctttatttaa ttcttacatg 60  
 gctgtgcaga agataatgct aagtggatct ctctaaggtc acacaggcat tgatgggctc 120  
 aagcctaaaa ccaaggctctg ctgactccta gactacaata ggtactttta tttccaaaat 180  
 gttttcattt tgaattgggt ttagcatgag ttggaccata gaatcttgga agatgagatt 240  
 tgcttaagtt cctggaatac catattatgt gaacaactaa cagagggtaa taaaatatat 300

<210> 43  
 <211> 420  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(420)  
 <223> n = A,T,C or G

<400> 43  
 aggatgttca acaggaaagc agtgagcaaa aaaataaatc aacagacaaa ggtgaaaaga 60  
 agccagacag caatgagaaa ggagaaagaa agaaagaaaa gaaggaaaag actgaaaaga 120  
 aatttgatca ctcaaaaaag agtgaagata cacagaaagt taaagatgaa aaacaagcaa 180  
 aggaaaaaga agtagagagt ttaaaacttc cttcagaaaa gaacagtaat aaagctaaaa 240  
 ctggtgaagg gacaaaagaa gatttctctt tgatagattc tgatgtggat ggacttacag 300  
 acatcacagt tagctctggt cataccagtg acctttcatc ttttgaagaa gatactgagg 360  
 aggaagttgt aaccgtctga tacatggaag aaggagagat tncgtcngat gatgaaaaaa 420

<210> 44  
 <211> 422  
 <212> DNA  
 <213> Homo sapiens

<400> 44  
 gaccgcgggg tggttggttc tagctattgc catggtacgt ttttatatgg aaaaaggaac 60  
 acacagaggt ttatataaaa gtattcagaa gacacttaaa tttttccaga catttgccct 120  
 gcttgagata gttcactggt taattggaat tgtacctact tctgtgattg tgactggggt 180  
 ccaagtgagt tcaagaatct ttatgggtgt gctcattact cacagtataa aaccaatcca 240  
 gaatgaagag agtgtgggtgc tttttctggt cgctgggact gtgacagaga tctactcgcta 300  
 ttctttctac acattcagcc ttcttgacca cttgccatac ttcattaaat gggccagata 360  
 taattttttt atcatcttat atcctgttgg agttgctggt gaacttctta caatatacgc 420  
 tg 422

<210> 45  
 <211> 417

<212> DNA  
<213> Homo sapiens

<400> 45  
ctgcaacctc ggtctcccgg gttcaagcga ttctcctgca tcagcctccc aaatagctag 60  
gattacaggc gccaccacc acacctggct aatttttgag acagtctcac tccagtctgg 120  
gcgacaaaac aagactctgt ctcaaaaaaa aaagtgtttg gcattcattg gctcttaaat 180  
ggtacctatt taagaggctg tacatgttcc agtgggatgg gaagcagcag agaccaacag 240  
agtctgaaga agcaagcttc tgagttatga aagcctgggt tcaggagact aacctatatg 300  
taggttccta ggaaagtcca gttaaagggc ctactttgcc actgctgcct ccttcttaat 360  
gctgaacctc atctcccaca agggggcagt ctcagcaggt gtcagctgag ccatgtg 417

<210> 46  
<211> 418  
<212> DNA  
<213> Homo sapiens

<400> 46  
gttgtttctg tcaggaaaat aaatcttaca gaacaactgg tgggaattgaa gctgctgcgc 60  
tagacttgga tattttgggt agtgaagaag caatggcaat cttgagtcta ttattgtata 120  
atttagtaaa agaaaaaaat aatcgttggt ggtcctacta agagaatgca gcttttttga 180  
gttggtcacag aggctgtgtg tgccctacac tgaccagggt ttgtaaaacc ctttcattct 240  
ggtacaagag tcgggggtat aacttttata cttgaatcta cctaccaagt ttacatttct 300  
caattccttt ttgtaagggt ctatttctgt atttaaataa ctttctttta accgtaaagc 360  
tgctttctgc ttatcttatt gcactgctag ttgtatgtag gtattaattt tattgctg 418

<210> 47  
<211> 414  
<212> DNA  
<213> Homo sapiens

<400> 47  
aagcccactg cctcctaaat tgctgggatt cccaagaatt cagcttctag tgtgacccaa 60  
acaaagatgg agacaagtcg cctgacagg tagggcacia tggaggtggg ggtgggaggg 120  
cagagctgct gacctctgac ctctgccaag gcagacgcat tggacaacag agcaggacct 180  
gaggtgaggg taattcctcc aggtgtgaag aaacaccta ggggggccag gcgcagtggc 240  
tcacacctgt aaccccaaca ttttgggagg ctgaggcagc cggatcacct gaggtcagga 300  
gtttgtgacc aacctggcca acatgggtgaa accctctact aaaaaatacaa aaatcagttg 360  
gtgtggtgtc aggcgcctgt aatcccacta ctggggaggc tgaggcagga gaat 414

<210> 48  
<211> 418  
<212> DNA  
<213> Homo sapiens

<400> 48  
agcaaaggca tctcaaagca aatagagatg tctgcaaatt ctcatctctg agcaaaatct 60  
ttgtggtggg ggtctcaatc tttctttgtt ctctgaatac catcagccaa cctatacaac 120  
cttttgcaag gtgttatgaa ttgagcccc actgttatat ccacaaaaaa gaaacaatca 180  
gacccccctag ttgaatttga tcgctacatt gaagatagtg tggtttcaca ggaacagtac 240  
cttgaacat tgatagtcct atgatcaggt cttaaaacag ctaagggaatg ggtgattaca 300  
tgaaaattat tgcaccagga atttgtggaa agcattctga gtaaatacag tgctgttaga 360  
ttaaatggat tttaacattt aatgaaattg ccagattatt tttatgcca tatttaat 418

<210> 49  
<211> 416

<212> DNA  
<213> Homo sapiens

<400> 49  
 ggtggctgtt gttggggcgc tcgaggcggc ggcgactctg cgtccccggc tcctgatgga 60  
 ggcggggccc catccccggc cggggcactg ctgcaagcct gggggggcggc tggacatgaa 120  
 ccacggcttc gtgcaccata tccgacggaa ccagatcgct cgggacgact atgacaagaa 180  
 ggtgaagcag gcggccaagg agaagggtgag gaggcggcac acgcccgcgc cgacgcggcc 240  
 ccgcaagcca gacctgcagg tgtacctgcc gcgacaccga gatgtctctg cccacccacg 300  
 caaccagac tatgaagagt ccggtgaaag cagcagtagt ggaggctctg agctggagcc 360  
 ttctggccat caactcttct gcttagaata cgaggcagac agtggagagg tcacat 416

<210> 50  
 <211> 415  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(415)  
 <223> n = A,T,C or G

<400> 50  
 gaccgcgggg tgggtgggtc tagctattgc catggtacgt ttttatatgg aaaaaggaac 60  
 acacagaggt ttatataaaa gtattcagaa gacacttaaa tttttccaga catttgctt 120  
 gcttgagata gttcactgtt taattggaat tgtacctact tctgtgattg tgactggggt 180  
 ccaagtgagt tcaagaatct ttatgggtgtg gctcattact cacagtataa aaccaatcca 240  
 gaatgaagag agtgtgggtgc tttttctggt cgcgtggact gtgacagaga tctctcgcta 300  
 ttccttctac acattcagcc ttcttgacca cttgccatac ttcattaaat gggccagata 360  
 taattttttt atcatcttat atcctggttg agttgctggg ngaacttctt acaat 415

<210> 51  
 <211> 412  
 <212> DNA  
 <213> Homo sapiens

<400> 51  
 gtcacttatg cctataagcg ggcatacaac aggggcacaa taaatgtttg ttaagtgaat 60  
 gaattctttc agaactagat gggatcttag tccaactctc ttattttaacg aggtccacag 120  
 aggttctgcg attgtctaag aaagaaggct gtgttcatgg cctttgttgt ttacgtggcc 180  
 ctgtgattct cttggctccg tgaaagtect gatgcagaca ttccggccat ctagaaaggc 240  
 atgcagacaa gccatccagc tggcatgata ctgagtcag ctttctttaa aagagcttcc 300  
 aaaactgctt aagctttgac tgcacaaaac ctgcatcacc tccagttgag aaactcaaga 360  
 gaataagtaa gttatggagt tggagacccc agcttaacta ctagttttaa aa 412

<210> 52  
 <211> 409  
 <212> DNA  
 <213> Homo sapiens

<400> 52  
 ggtctgtctc ctctctccac ctccaccatt ccctggttct agctttctta atatcactga 60  
 ctttctcata cgtaactgta tcttttggtt ccctcactac gctgcattac agatttggtg 120  
 tgtaataatg ttacttgaat caagagaatg tcgaagcaaa tatccaaggg attagaaaga 180  
 gctaataatg aaatgaaaga ttttgggtag gcttatatgg aagtcacaaa tgggtcagaa 240  
 tgactgagat ctctccttaa gactggcctt tgatagggga tgcaggccag cattcagttg 300



attcgcagaa	gaaaaaccaa	ggagttcctt	taaactgaac	aagaggcagg	gctatgtccc	360
aggtggacag	gagggatggg	gggatgtttt	cttatggaaa	tagcaggct		409

<210> 53  
 <211> 409  
 <212> DNA  
 <213> Homo sapiens

<400> 53						
aagttatgaa	aacagtgagt	tattgtttga	tcgtctgtga	tcccaatfff	cctaggaata	60
tagactgtta	ggaatataga	tcctgtcaca	agaggcttaa	taagtaaagg	aacctgtgg	120
tttcttggct	gttttgcttt	tcaaagtctg	tatcatttta	actagtgtag	caatgacagt	180
ttctttttgt	ttcttgataa	ccttgctggc	tactttgttt	cctgataacc	ttgttgtcta	240
ctttgtttcc	tgataacctt	gttgtctaca	ttgtttcctg	gttgatttat	cctccttctc	300
cccagcctct	ttggaaatct	tataactatg	gtgtttgtgg	ttagagggtta	gagtctagta	360
gaggatggtc	aagactttga	aggcaaacgc	ttgcctgtga	gggctgctt		409

<210> 54  
 <211> 407  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(407)  
 <223> n = A,T,C or G

<400> 54						
ggaaaaactc	accccatga	ttcaattacc	tcccactggg	tccctcccat	gacacatggg	60
gattatggga	gctgcaattc	aagatgaatt	aaggtgggga	cacagcccga	aacatatcag	120
gaggttcctg	gaagaaacag	agttgaaagc	agttatcttg	ctgagtgggg	gactcagggc	180
atgggcagga	gactgctgag	ttttgtttta	catcttacta	catttgattt	ataaaagaca	240
gatgtgcata	tatcacttca	aaaaaacaaa	actggatgtg	gctgatgcca	aagtgcctg	300
cccagaagag	ctgctaacag	aacancatcc	caggaggctg	cagaaggctg	aanancaaag	360
ccccacctgc	tatggccaca	agangcctgg	atgccatgga	ngccgca		407

<210> 55  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<400> 55						
gaatttgtaa	aagttcgtat	gctttgcctc	tcaactgcat	taacatgcca	caggctcaga	60
ctgtttttgt	gtaaaggatg	tcaaagaacg	gcactttttc	taaagagaag	tttgatattt	120
tgtatgcttg	ttaagaaagt	acagtatttg	aaattaaagg	tggacaactg	ataattgagg	180
agtatgtcaa	ttattttttt	atgtatatta	cctgtttact	tgtacaactt	actgtacaaa	240
ttacatgcag	cttcattttc	aatgaatcc	ttaaaataag	gaaatctttt	taggaaaaca	300
tttaattttt	gtatttttga	ttttaaaggc	atgagttatg	tcaattttca	gtgtattaat	360
gaagatttta	acttttcatc	aggttgagtg	ttttcttact	a		401

<210> 56  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<400> 56

attctgagtt	ggggcaggct	cagcctgcc	gcttcttcga	tgtccagcat	ctctgcagcc	60
ttgggtgttc	tcattccctc	tgagcccca	ccccgtcat	tgcttctagc	tctggctctg	120
ggatgtggca	gttccaccat	aagctaggct	acctcttctc	tgctctctc	tcagtctccc	180
aacctatgtc	tccatccata	tgttaaccct	ttccttcaat	ttatgtatga	ggttggtga	240
ccttgagagt	tgacatcatt	gatggtaaat	aaccaagatg	cccactgacc	tctccacttc	300
agaaaagata	gcatacagaa	gaatccactt	agaggtggaa	ccctctgcc	ccttttcaact	360
ttctctctct	cttttttttt	tgagacaggc	tctcgctttg	c		401

<210> 57  
 <211> 407  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(407)  
 <223> n = A,T,C or G

<400> 57						
gttatactag	gaattcttta	taaacttaat	aaatgaaagc	tttttctctt	ataggcccga	60
ttctctagt	gacttctggt	gaaattatgt	ggctaccttc	cattaatgtt	aatggagggt	120
atggatataa	atccctccat	agtgatggaa	gaatgagccc	cagagagaag	aatgtttcta	180
atgaatcact	ggattgtgat	ataggattaa	cttggtgtcc	ctaataccat	tttttttctt	240
cctgaaagtt	taaggcttta	tgtttaggaa	ctagtctctc	tccaccttaa	tcctttattg	300
caagctgcaa	taatgttaag	aacaggaaaa	aaaaaatgta	nattcctgga	taggcncagt	360
ttttatatta	atgnaactat	ttaggctaag	ttttatatta	anggacc		407

<210> 58  
 <211> 402  
 <212> DNA  
 <213> Homo sapiens

<400> 58						
attctataaa	caaaaactct	ttgttaaatt	aaccatgaca	caaattattc	tattgtcttc	60
cccgaatccc	acaacccctc	ccaacattta	aaattcatct	ttagatagca	gattatccct	120
taaagtacca	ttttactctc	tgaaaaagtc	ctagaaatac	tactctctgt	caatgcagca	180
gaccgctacc	ttgcaaggaa	aagatgggtc	acttacataa	ttatccttag	ttatgtttac	240
aacattgaag	caggcaatat	ctgactttca	ttcctgagtg	aaatccagac	cacagcccag	300
ggaggacca	gccatggcat	tctgttgctc	cccgctgaac	gtcccacacc	atagggctctg	360
gctttggctg	gaagaagggc	aacctcacc	agtccttcag	aa		402

<210> 59  
 <211> 406  
 <212> DNA  
 <213> Homo sapiens

<400> 59						
cccaaactct	tatggctaac	ttttttgcc	cctagtagac	tccagctgct	gctaggctgg	60
gtgtgtgtag	aataaggccc	tgtgaacaca	gacatccctc	tcgggaataa	gagctgagca	120
gtgcaactca	cgggtccccg	gcggtccaca	ccatctgttt	gctgcagcag	gatggcttgg	180
gtgggtccatc	cagggccctg	cccagagtct	cttggggcca	aggctttccc	accctgtccc	240
tctcactgcc	cacctccagg	taggcacagt	agggagggtc	ggcaggaatg	accaggaggt	300
gaaagcaacc	ctcttgtctt	ctggtgggag	gatggagggg	ccagggcaaa	ctgtgaacca	360
gcctttggac	gggggtaccca	cccacttcgc	tgactctcct	tgcccc		406

<210> 60

<211> 404  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(404)  
 <223> n = A,T,C or G

<400> 60  
 gcattttcaac tcagtattca ttattagttg tgtgtctgga aagattgtac ttacttttcc 60  
 tctttacact acagttcgct cttatggggc tctaaactgt ttaactgaag aagcttcgtc 120  
 tgtattttga ttgagcataa tttagtattt tatgatttcc aagatgatgt tcttatgtct 180  
 atcaagtcta tgtatcaaat ttataacatc atttaagaaa aaggaatttc cacagatact 240  
 tcagttgcaa ttttttgttt catgctactg aaaatacatt tgtttctagg ggttggata 300  
 ttatagaaga tggaggatga aagaaaaccg atagaacaac gaaagaattc tgtttatgaa 360  
 attacaggaa ttgtgccact atggnaaagc attgtcattt tagt 404

<210> 61  
 <211> 402  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(402)  
 <223> n = A,T,C or G

<400> 61  
 gcactcccag gatcgggtca tcggcacaaa aggagacatt gccacattt atgatattca 60  
 gactggcaac aagctgttga ctctgtttta cccagatctt gccacaact acaagaggaa 120  
 ctgtgccacc tttaatccta cagatgatct tgtcttaaat gatggcgctc tctgggatgt 180  
 ccgctctgca caggccatcc acaagtttga caagttcaat atgaacatca gtggtgtttt 240  
 ccatccaaat ggactggagg tgatcattaa tactgagatt tgggaccttc gaacttttca 300  
 tcttttgcac actgttcccg ctctggatca gtgncgcgtg gtgncaatca cacgggaaca 360  
 gtgatgtatg gagctatggt gcaggcagat gatgaagatg ac 402

<210> 62  
 <211> 404  
 <212> DNA  
 <213> Homo sapiens

<400> 62  
 gaaaaatctg tcagtgaagg acctgggtct ggttgagaat tacatcagct tctatgacca 60  
 cctggccagc ctgtgggatt ccctgaaaaa gatgcatgtc ttagaagaga aaagagttag 120  
 gactcgacta gaacagggtcc atgagtggct ggccaagaag cgcttgagct tctactagcca 180  
 ggaactaagt gacctccgaa gtgaaatcca gaggtcaca tacctggtga accttctgac 240  
 ccgctacaag atagcagaga agaagggtgaa agatagcata gcagtagagg tctatagtgt 300  
 ccagaatcct cttgagaaaa catgtaagtt caccacaagag gatgaacaac ttgtgcagga 360  
 aaagatggaa gctctgaaag ccacccttcc ctgtctggcc tggg 404

<210> 63  
 <211> 399  
 <212> DNA  
 <213> Homo sapiens

```

<400> 63
gataaaatga tgggtcttggc tgggattgca ggcgaggagcc actgcagctg gccatcttac      60
ttaattttta taagaatccc cagaaggtag gttgtgttaa gattcaaact gtataaatga      120
gtaaagttaa gcgtaatgag aataaaatagt tcaagtaaac aaagtgcacag aaccagcatt      180
caaattcaag tatctctgac ttcagagtgc atgatcttaa ccaactctacc atactgcctt      240
tctctgggta cataggagat atggctgttg gaagaagggt taatgtaaca atggcatcca      300
aagtacaatt ttgcttcata gaccaaatt caaagggtact cctactgtat ataattcagt      360
gatggactag atctaatttt gtcttaacta tattgcttg      399

```

<210> 64

<211> 397

<212> DNA

<213> Homo sapiens

```

<400> 64
gcgccccggtc ctgggggtccg cacgagccgg gtcgggcaga ggctgctcct cctccccagg      60
acgccggcgc cacacccgcc ccccgacgcg tgcggcgaggc cagaagcggg ggcgaggagtg      120
ctgggaacag cttttactgc ccacgcccta cacggcggaac atgcgcagag cctcctccgc      180
cgagcggcac tgggttcagct ggatctgcac ctctacggtc aggggctcag ggtggtaatc      240
gccttcgtag atcggaatca cggctttcgg cttttctgag aaaatttaag tgcgagcatg      300
agccccggga gacggatggg ctggcgcttc cggcgcacct gacccatccc atatgcaagc      360
cctggaccct gtcccagcgg gagcacagtt ttggctc      397

```

<210> 65

<211> 399

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1) ... (399)

<223> n = A,T,C or G

```

<400> 65
ggggccacca atctggccga cctcaggctc tgggaaacag gctgccctcg tccctctgcc      60
tgtgggtggc tgaggcttct cagcccatct ccagttctct gcagcaaagg ccctctgttt      120
ctgtcctgca gtggggggccc tttcgtgggt aaacatgtcc ctccccctct cacagaactg      180
agtacctatt gcggctgggc ccgcccaacc ctgtgtccct gcacccatgg gttctaccac      240
ctgattcggc tgcagctgtc actgtcccggt gtctgctctc tgtcaggcct ctgagtgtg      300
cagacgtatt aacatatcac cgctagttga tggaaagtct tgtttcttat tagaatattt      360
tgnntagga cagggngccc cagcactgtc tatagcaac      399

```

<210> 66

<211> 398

<212> DNA

<213> Homo sapiens

```

<400> 66
ctaataattaa aaagtcatta gaatcagaga acattgcaga gttcaatttt agaatacatt      60
tagcagaaaa tacatgaatt aagagagggt gactgaatgc aatatagttc tgtggagtgg      120
aaaatatgag gtatatgtgt tcagtgatgg accactgaat atatatagat tagtcattgt      180
taattttaag agtctagatt ggagactaga aaggctcctc ggttctagtt agtgaaagta      240
tttgtacaag aagtgactct taagtattgc aacaatgttc caagagtata catattgaaa      300
tccatctctt accatcatca tgatcacact cactgccaca tctctgttcc cagaacaggg      360
catagacatc agtttctgaa acctaatagt acctaggg      398

```

<210> 67  
 <211> 395  
 <212> DNA  
 <213> Homo sapiens

<400> 67  
 ggccactggg tcccaggccc ccaagtcccc ctgggcctgt ccaaagactc caagaggggg 60  
 aaccagaagc cccactgggc ccaggggtggg tcagtgccgc ccagcagcct ctgagcatcg 120  
 ggaggaatgt ggagtgtggg tgagggggcac aattctccac cccagggggc ttccaggctg 180  
 tagcaaagca gccacgtctc tccacctgcc cagggcacag acccggtgct cagccgcctc 240  
 cagctccagc tgagcccctg ctgcatgggc ggcccggggc ctgggggcag agaggagaga 300  
 gccgctgtgg gaggagagtt tgggggcgtg gtcaaggcag agttgggtgg gtttgaagtc 360  
 cagcaggagt ggcagagaga ggacttgacg tttgg 395

<210> 68  
 <211> 420  
 <212> DNA  
 <213> Homo sapiens

<400> 68  
 ctgtcttcaa gtggctttac aggtttttaca ccgcaaactt ccccagtttt gcgctcacct 60  
 ctgcaatgct gtgattggct acctgagtac tcgcggttcc tcagtagatg gcagtcacct 120  
 actgctattt ctccgagatc agacgagttc cagactcctg gagcagggtc tgctgggtgtt 180  
 ggagccccca agactccaga gcctctttga ggagcacttg cagggggcagc tgcagacctt 240  
 ggctgcacat cccattgcca acttcccttt gcagcgctta ctggatgcag tcaactaccc 300  
 tgagctgctg tcccctgtgt ttgaggagct gagccctgtc ttggaagctg tattggccca 360  
 gggccaccca ggggtagtca ttgccctggg gggggcctgt cgcagagttg gggcctacca 420

<210> 69  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(393)  
 <223> n = A,T,C or G

<400> 69  
 gtctttgtaa ggagcgtaac attgcttaag atttatatat aaccgagtca ttttctgtct 60  
 ctgtatcata ttcctttagg taagcttttt caaagttact ttgaatagtt gatatagatt 120  
 tagaacaac gagtcacat tctcaggata cttctattgc ctttctggaa taatgcagct 180  
 cattgttctg ccaagtatcc tctaatacag ctgaaaagtg ttttctttta tttcatcatg 240  
 acattgggccc ttttaattga gagtgaaaat cattaaaggc aaattatttt gtgtaaatta 300  
 tggtagattt agccttacta cataattttg gaatgntttt atgattgggt gngtatgctc 360  
 tggcagatgt ctttatcatg acttattttt agg 393

<210> 70  
 <211> 392  
 <212> DNA  
 <213> Homo sapiens

<400> 70  
 atctcatcca ttcttgcttc actcaccact tcctttttct cagaggtcaa tgctgatgc 60  
 caggtccact cactgaaatt ccatgaagac tgggaattgt tgcttggag catgtatata 120  
 cattctcttg ttattctcct cccagttcct catcaggacc ttctgttgct tctaataggt 180

aacctcttta	aatagcacag	tttccctctt	ctgcaagtaa	agttgcagta	gggttctgat	240
ggcattaata	ttttaaaaga	acttgtgatt	ttgtttactt	aaaagtgagg	gatgtgaaca	300
gatgtcgact	caacctgaga	aagaaggat	ttgttctagt	gactaaat	ataaatgaga	360
ttcagagcca	cttgattaat	agaagatatt	ta			392

<210> 71  
 <211> 384  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(384)  
 <223> n = A,T,C or G

<400> 71						
ggattgtgaa	ctctggacaa	aggaggggtt	ttagtctctt	gcttcttttg	acgggtcact	60
ttgccatgag	cattagtggg	gaattaggtt	acactttcct	gttatgtatt	tattatccat	120
ttatatatta	tacaaggcat	gcttattttt	aaaatagagt	aaaatccatg	ccgaaagccc	180
catttctcac	cctgctgttg	acagctgcgt	gagtcctaaa	ccttctcata	tcatgccgca	240
tgctgcatgc	ttactcctgg	agccgttttn	caaanaagtg	cnantacact	gtgctattga	300
attttntgca	cnngttnna	atctccnnt	ncttgatttt	tttaagaanc	cccccnct	360
ttactnnttt	aagnggncn	ttaa				384

<210> 72  
 <211> 363  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(363)  
 <223> n = A,T,C or G

<400> 72						
atggactcca	gctgtatcca	tggtgctgca	aaggacacga	tctcattcct	tattatggca	60
tataatattc	catggcgat	atgtactata	tttcttttat	ccaatctact	gatgatggac	120
acctgggaca	aatcaatgtc	tttgctattg	cggatagtnt	ntanttttnc	ngncggnanc	180
atgtccctgg	gggtgggnt	ctttnnnttn	ttttnnactn	cttttgtttt	agncccnng	240
ncacntttca	acgnntntnc	tttgngnata	gtggccaaaa	aaacnnaaaa	aantttnttt	300
ttttngnaaa	aaanaat	ttggnggggn	gnncnattta	ttngaaanct	tattntcctt	360
cct						363

<210> 73  
 <211> 389  
 <212> DNA  
 <213> Homo sapiens

<400> 73						
ctctctccca	ttctgttttg	ccagatagct	gatctggcca	atgaagatac	tccacagttg	60
tatgtggcct	gtggtagggg	accccgatca	tctctgagag	tcctaagaca	tggacttgag	120
gtgtcagaaa	tggctgtttc	tgagctacct	ggtaacccca	acgtgtctctg	gacagtgcgt	180
cgacacattg	aagatgagtt	tgatgcctac	atcattgtgt	ctttcgtgaa	tgccacccta	240
gtgttgtcca	ttggagaaac	tgtagaagaa	gtgactgact	ctgggttctc	ggggaccacc	300
ccgaccttgt	cctgctcctt	attaggagat	gatgccttgg	tgcaggtcta	tccagatggc	360
attcggcaca	tacgagcaga	caagagagt				389

<210> 74  
 <211> 300  
 <212> DNA  
 <213> Homo sapiens

```
<400> 74
aattccggtg ctgtcggaaa atggttaattt gaagatgtgg ggcagggaca gtgacatttc      60
tgtagtccca gatgcacaga attatgggag agaatgttga tttctataca gtgtggcgcg      120
cttttttaat aatcatttaa tcttgggaaa attcaggtgt ttggtgtctg ctttttttgt      180
tcttttttcc agcacaacat aacttaccac tgatactccc ccttttagtta ttctgaatta      240
ggatattttt gctccaaatt cttatttttac ttaaccagaa gggaaaaaaaa gctgtatttt      300
```

<210> 75  
 <211> 417  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(417)  
 <223> n = A,T,C or G

```
<400> 75
ggcccggctg cagcgagcgc tggacggaga ggaaagcgac tttgaagatt atccaatgag      60
aattttatat gaccttcatt cagaagttca gactctaaag gatgatgtta atattcttct      120
tgataaagca agattggaaa atcaagaagg cattgatttc ataaaggcaa caaaagtact      180
aatggaaaaa aattcaatgg atattatgaa aataagagag tatttccaga agtatggata      240
tagtccacgt gtcaagaaaa attcagtaca cgagcaagaa gccattaact ctgaccaga      300
gttgctaatt gtgaaaattt tcagaagact gatgtgaaag atgatctgnc tgatcctcct      360
gntgcaagca gttgnatttc tganaagctn cacgtagtcc caactttcag attttgg      417
```

<210> 76  
 <211> 408  
 <212> DNA  
 <213> Homo sapiens

```
<400> 76
cacacacact taagaccctt tgttcctagt aacattcatc ctcttgattc ctggtgaaca      60
cggttaaatt catgcacatt tgttcttgta gtttctaaaa attagatcaa tttatttggt      120
agccagcaaa ttgaaaattc cattattaga ttaatgaaat ttttgctctg cttatatgta      180
tacgaactgg aaatctgaat ttttaaattt agatctttta atcaaattat ttttatgcat      240
attttcattt aatatagagt ataccaatcg attgaagcct ttcacaagta gtgcgctgag      300
cttttcttat tgaagagagt gaattagttt ctgagaagca gtctattgtg aaaagtttca      360
gatgagatta ttttctttta gtctttttta atatcactat atgtattg      408
```

<210> 77  
 <211> 417  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(417)  
 <223> n = A,T,C or G

<400> 77





<210> 81  
 <211> 412  
 <212> DNA  
 <213> Homo sapiens

<400> 81  
 ctccagagct gcctttgaac atcctaacag taatcacatc tcaccctccc tgagggttcac 60  
 tttagacagg acccaatggc tgcactgcct ttgtcagagg ggggtgctgag aggagtggct 120  
 tcttttagaa tcaaacagta gagacaagag tcaagccttg tgtcttcaag cattgaccaa 180  
 gttaagtgtt tcttccctc tctcaataag acacttccag gagctttcca atctctcact 240  
 taaaactaag gtttgaatct caaagtgttg ctgggaggct gatactcctg caacttcagg 300  
 agacctgtga gcacacatta gcagctgttt ctctgactcc ttgtggcatc agataaaaac 360  
 gtgggagttt ttccatataa tccccagcct tacttataaa ttctattctt tg 412

<210> 82  
 <211> 413  
 <212> DNA  
 <213> Homo sapiens

<400> 82  
 ctgtcccggg ggtcagggga gggaggccag cgggccggcg ggggtccgcc cgaccccatc 60  
 cacgaccccg actcctatcc gacccctatcc ccggccccgc tcgggccttt ccccttgccg 120  
 cctggctcgg ctggctcgac gagcagtaag ttogtagccg ccctccgaag ccgggcgtgc 180  
 atgggatggc agagttggcg tgcgtgcgtg agtccaccag tgtggcatgg gcatgtaagg 240  
 tgcgcggagg gactgcacct tctccatcag gtgcagaagg ccacgtcatg ctgaacaaga 300  
 gccgagaagt agaatcgcca gtgtcaagcc gtccacgttg tgggatgcc actgttcccc 360  
 caggatcact caagaccctg tgacttgtgg tccatgatga gtggaccaag tga 413

<210> 83  
 <211> 418  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(418)  
 <223> n = A,T,C or G

<400> 83  
 attttttgta cctataagct tttccagac catagacaag atcctaaatg ccttttcttc 60  
 atccctgctt gctaaatccc ctcttcaaa catttcagaa aatactgtct ttacttttta 120  
 taaagacttc actttccaaa aatgtacccc cacctccatt tcttattact taacaccact 180  
 tgtgtgaaaa catacaactg cccacttgct tttcctttaa gacactgact ttaccaatag 240  
 tagaaactca ttactgacct actcacttta ggctgaaggc tgacagataa agcaagttct 300  
 ctctgggtgat ctgtggaccc gccatcagtc cacaatctaa agatagtatt gagatgctga 360  
 tgagattggc aatgttaatc tgatgatctg tatgctcttt accacaggnt tttttttg 418

<210> 84  
 <211> 413  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(413)  
 <223> n = A,T,C or G

<400> 84  
gagatgtggt ccaagggagc catccagtga cgggtactct tgtgtttgct gaattctcca 60  
agcccagtgc tgcaagcatt gagtgaagccc tagtgtgtgc caggccctga cctgaagctg 120  
atcaggggtc agagtgccct gggcagccca ggatgaagtg ggctccaaca gcatctggag 180  
ggagttaggt gtgcaagggc ctggcacccc atttcccttc cacatgggtt aacctgctct 240  
gctcactact ccatggctca cccctcgccc agccatcccc aaggcctagc accagttgat 300  
gctcaatata catttgacaga ctacagaagt taggttcatt tatcgattg gcagagtgtg 360  
gacgctccac ctgacactac cgcttcctgc catttgngtn anttnccaag gat 413

<210> 85

<211> 405

<212> DNA

<213> Homo sapiens

<400> 85  
ggccccgcgg ggcagccatg cctggccgtc tgctgcgggg cctgtggcag cgatggcgcc 60  
gttacaagta ccgcttcggt ccctggatcg cactgaacct aagccacaac ccgaggtaca 120  
gtatatcaga agtatgagcc gatctttttc cagtccattg gaaatccgtt tatttttaga 180  
tgcttggatg gggtaactcat tgatgggaat gacaaaagga tatcaaaagt tgtgtacaga 240  
tcttgcaatg ggagggatcg actcgccctt ttaaaaatga gtgatagtac atggctaacg 300  
tcagaaattc ataaccctct ggctgtggga cagtatgtca acaattgttc caatgacaga 360  
gcagctaattg tctgttatca ggaatttgat gtgcctgcag tttcc 405

<210> 86

<211> 398

<212> DNA

<213> Homo sapiens

<400> 86  
gttagtcagg atggtcttga tctcctgacc tcgtgatccg cccgcctcgg cctcccaaag 60  
tgctgggatt acaggcgtga gccaccgcac ccagccatgc ctggaatatt tttgtaattg 120  
aaaaatgaaa tgggagaagt cactgttcct ggctttgagg cttactctga agccacaaat 180  
caacattgct gcgatggcag acagacgcgt ctgtggagag aagagaggac tcaggccaca 240  
caagagagac cagcggagct ttgacagagg cagaaaaccc gttcatcaga tggctctggag 300  
cacctgggca gcggtaggca aagccctaag ccctcgttct acagaacagc tcatcagaat 360  
gcagggcatt taggtgaaaa cctttgtggc ctggggct 398

<210> 87

<211> 398

<212> DNA

<213> Homo sapiens

<400> 87  
cgagaaaaaa gtagctcagg tacaggatac tgcaattctt agaatctggg aaacttttta 60  
tgtgggaaat aactcgattt gcttctctgt aactgagcta cttttttctc gagctcattt 120  
ttgtttaagg taacactgct agggttctga gtttgagaag ggatcttcta aaggtaaact 180  
taatattgca actttcacca cagggcctct gtctaaattg catttcaagt ggaaggaaag 240  
gggtatgaga agtgaaatcg aattttgctg cagacaaaaa tcattctaca aaatgtagac 300  
atggtaacag cttaccacga attcagcaag atttaacgcc aagtacagtg gtgtagactt 360  
tacaagtatc cacttccatt gggtagtcag acaagtca 398

<210> 88

<211> 400

<212> DNA

<213> Homo sapiens

<400> 88  
 aaaagcttgg gaaccagtgc ctattttattg gtaaaactaag tgaaaatcca gtgacttcac 60  
 tgacatatatt ggatcttatt agtatatggc tgggaggaga ttaagtcatt tgaatttatt 120  
 tcaattctga aaagaaagtg ctgcctaaaa attattatag tatttgggaa tatttctacc 180  
 cagtatacat ggtggcgagaa aatcacataa tctgtgttgt ggcaaaaagca ttgaatagga 240  
 agccaggaga tgtgggttcc agtaccaca tgccgtctct cctgagtacc cagggtggccg 300  
 tgggctagac acagctgcag gtgtctagtt tgtaggtgat gggttagaaa tgggctgtaa 360  
 atgagatgaa gattgctttg gccttgggtgg ggtggagtgg 400

<210> 89

<211> 420

<212> DNA

<213> Homo sapiens

<400> 89  
 aaatattaga acagtaaaaa gtcttagaag aagatgatct cctgcgagta gaggagcagc 60  
 taggctctga taaaaaggca attgaaaagt tagaagagga acagcatgcc ctctttgcc 120  
 gagatgaaga tctgactaat aaactttccg actacgaacc caaagttgaa gaatgcaaga 180  
 cacatttgcc aacaattgaa agtgctattc actctgttct cagagtctct caggatctga 240  
 tagaaacaga aaagaaaatg gaagacttga ctatgcagat gtttaatatg gaagatgata 300  
 tgctgaaaagc agtgtctgaa ataatggaga tgcagaaaac ccttgaagga attcagtatg 360  
 ataatagcatt attaaagatg caaaatgaac tggatattct aaaagaaaaa gtcattgatt 420

<210> 90

<211> 384

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(384)

<223> n = A,T,C or G

<400> 90  
 ggagaatcca ttactgaaaa gcatttaact taaaaaatca cctcagaaca ctgccagttc 60  
 tgagggtgatt ttttaaatttc agtattaggg agagccctgc attcgctgac tcagattcta 120  
 cataactaat gtatgatatc atatgcttaa ctattatant gtgcgtntct tngncataca 180  
 caggntataa nttttntntt ttggcanaag atctttntnt aaaaaagntn nggttttggg 240  
 nnttntattt taagnncct ttttttantt gngggggnnt nantngngg atacccttn 300  
 ttttaacctt ttnntttggg tgnnnaannn ctnnnnncnt tttttntgtt tttatgntgg 360  
 gnnncnatnt ntccctntt tttt 384

<210> 91

<211> 411

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(411)

<223> n = A,T,C or G

<400> 91  
 gtttggactt taatatatga agggctgggtg gtgaagacag actctagact ctaaagggttg 60  
 gtggctggct atgtagggga tgggggagtg ctaccctgt cagggtgggtg gggcttcctg 120  
 gctgcagagt tgggtgggag acttggggaa gatgcttttg aaggcagtga gtgggtgggtg 180

tcaacttcta	gtagtgcagt	gggagagctg	gtcagggatg	ggatggagtg	aagggggcag	240
aggcatttgg	tgtgggggtg	atcaaaggaa	ttttggaaag	gcttggaaac	attcctatgt	300
ntntgaaaca	cacctatgcc	nggcaaagac	tccaaactca	agnttttctc	tttcttctan	360
tcacaaaaaa	catngccttg	gagtngnaca	ctggncatang	aatccatgac	t	411

<210> 92

<211> 374

<212> DNA

<213> Homo sapiens

<400> 92

tatttttcta	ttttctggaa	atttcatttc	tttgaattcg	ggcataagag	atttagaagc	60
ttcactcaaa	tattaagctt	tatttaaaaa	gatgatttcc	agtatttcat	tttatattca	120
cattaatcaa	gtctacatgt	ttcgtttaga	gtaacaggaa	gatggtaata	cgcccaggga	180
actatctgga	agtgtagaaa	ttgggatgaa	caccgggggt	atacttggtt	tgatctgcct	240
gtggtgctat	gatgacttat	tttctctcat	tattgcatag	aaactcaatt	cagtgatgtt	300
attcagatgt	tattcataag	ttattgccat	gattcatcac	ttttatgtca	tcagagttgg	360
gatggctacc	caga					374

<210> 93

<211> 369

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(369)

<223> n = A,T,C or G

<400> 93

gaacagcctg	accaacatgg	caaaaactcca	tctctactaa	aaataccaaa	aaaattagca	60
gggtgtggtg	gtgnncacn	gtcnnnccac	ctattcaaga	ggcttatgng	ccngaagtct	120
cgaaccnngg	acgtgcncct	ttnttntnng	ctctntcgag	cctctnnant	tnaangctnt	180
ccgnngcnnc	nttntcttta	gggcantcaa	gtggtccaan	ntcnagctct	tcnggggnacg	240
natgtcggtt	tttggtttgg	aaaagggtgn	tntctcannn	tnncnnngcn	gcngggcggtg	300
ttttttntnn	ggacntccct	gtgncnnann	canoctcnnn	gagntatnga	tgtctngncc	360
nncactttt						369

<210> 94

<211> 369

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(369)

<223> n = A,T,C or G

<400> 94

ctttgctatc	ttgaaaaaaa	tttagattgt	tttattttgt	ggacacattc	ttcattcaca	60
ttgaaagcag	agtattacag	agtgttattt	taaatttaag	ctgtcaaagt	ttgatttngn	120
cgcncnattn	anttntcttn	atngtntcnn	tattggannn	ntatntctnn	ttnantntnc	180
acatnactnt	ttcttancta	ntnaancntt	cttanncnnn	tnannaccgn	tatntaatan	240
nntaagntct	tntctnttnt	ttnnnnnnct	ncgtntatnn	tatttcanna	natnttctnn	300
atagnactnc	tccttctntn	ctctccttat	tanaangacn	catcattatt	cntattattn	360
taatatattt						369

<210> 95  
 <211> 392  
 <212> DNA  
 <213> Homo sapiens

<400> 95  
 gttccccgcc gcacccgtcc ctctcctctg caccctctgct gcttctgctt tgaaggcgga 60  
 ggctccatgt tgtccctca gcgagtggca gcagctgcct caagaggagc agatgatgcc 120  
 atggagagca gcaagcctgg tccagtgcag gttgttttgg ttcagaaaga tcaacattcc 180  
 tttgagctag atgagaaagc cttggccagc atcctcttgc aggaccacat ccgagatctt 240  
 gatgtggtgg tggtttcagt ggctggtgcc ttccgaaagg gcaagtcctt cattctggat 300  
 tttatgctac gatacttata ttctcagaag gaaagtggcc attcaaattg gttgggtgac 360  
 ccagaagaac cgtaaacagg attttcctgg ag 392

<210> 96  
 <211> 305  
 <212> DNA  
 <213> Homo sapiens

<400> 96  
 aaaaaaata cataaatata taatgctgat taggtatgcc ttataatttt ctttaatata 60  
 ggaaatactt attttagtag aactgacact tatgggaggt attatgtttt tggtttacat 120  
 ctgcaaactc acatatttga ataggaaaaa cctggacata ctgggatctt cttatatagt 180  
 aagttttcat aagtattcta tcaaatttat tttggttatt tggctaactc ataagttaat 240  
 ccacccaagt ctttttagtg attttttaac atttgagtag taattgggta attttttttt 300  
 ttttt 305

<210> 97  
 <211> 300  
 <212> DNA  
 <213> Homo sapiens

<400> 97  
 aattccgttg ctgtcgaagg atttttgcaa ggaatatgaa aaacaagtga gaaatggaag 60  
 gcttttttgt acacgggaga gtgatccagt ccgtggccct gacggcagga tgcattggcaa 120  
 caaatgtgcc ctgtgtgctg aaattttcaa gcggcggttt tcagaggaaa acagtaaaac 180  
 agatcaaaaat ttgggaaaag ctgaagaaaa aactaaagt aaagagaaa ttgtgaaact 240  
 ctgcagtcaa tatcaaaatc aggcaaagaa tggaatactt ttctgtacca gagaaaatga 300

<210> 98  
 <211> 300  
 <212> DNA  
 <213> Homo sapiens

<400> 98  
 ctttgatcct tctggaatta attttggtgc aaggactgag gtaggggctc acgtttcctt 60  
 cccgatgtca gccactactt ttggtctttt aatctataaa agcagggcac tgggttagaa 120  
 tttcctaaat ctcttatata tcaaacaaag cactcactgc aaacttgatc aatagaggaa 180  
 agtatgcttt ttttgtattt taccttttac cagtttcact tactgtaaat cataagggtg 240  
 tcttacatag tagaaaaata gcattatctt aaacctggct ttttattact aaatatatca 300

<210> 99  
 <211> 511  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(511)  
 <223> n = A,T,C or G

<400> 99  
 tgccgtagcc nangnnntgc tnaatgannt ntnaanngga aancccccga nnnttcgann 60  
 agaatccggg gctgtcgggc actgtttaag agtaccatgg agatagcctc accttcaaag 120  
 gatttacaga cttgctggaa aatctaaaca tgagaaactg ttaaataaat gagactatct 180  
 tcaagttccc aaagcagtaa tctctactg acttctgggt aaaaaataa accagttata 240  
 agttgatgtc ctaggaaaat cgaagagaga tctgtgtggc ctggagtagt tgaggaaat 300  
 ggcaagaggc atggatccct gttgcaaaag gtggaaagtc tcgtcagaat acaaggaaat 360  
 gaaatgaaga gatatttcca gcaagaacag acaaaattta ggaaacaatt agtaaatagg 420  
 agcacagaaa atcattccag tcttgcctt caagtttttt ttttttcccn tgggtaagtn 480  
 tgcactgaag ttaggctaaa ttcttgactg g 511

<210> 100  
 <211> 300  
 <212> DNA  
 <213> Homo sapiens

<400> 100  
 aattccgttg ctgtcgcggg agcggggaca cggcaggaga ccgaggggtc ccccgcgggg 60  
 gaatggagga aaccaggcga gaaaggagcg ggaagacctt ggagccgcgg tgttcgggct 120  
 ccgcgtccct tttcccaaaa aatccacccc cgcgcccgcc agacggaaaag tcacgcagtt 180  
 gtttgagact cgcgcattct tctcctcgtt caggggggatg gcagtaggag ctctcgtctgg 240  
 gtcgtcatga ggaatgcaga gaatggaaac gggaccttag aggactaccc ccatttcaca 300

<210> 101  
 <211> 422  
 <212> DNA  
 <213> Homo sapiens

<400> 101  
 gcggacgtga gcgataatgg cggatatgga ggatctcttc gggagcgacg ccgacagcga 60  
 agctgagcgt aaagattctg attctggatc tgactcagat tctgatcaag agaatgctgc 120  
 ctctggcagt aatgcctctg gaagtgaag tgatcaggat gaaagagggtg attcaggaca 180  
 accaagtaat aaggaactgt ttggagatga cagtgaggac gagggagctt cacatcatag 240  
 ttggtagtgt aatcactctg aaagatcaga caatagatca gaagcttctg agcgttctga 300  
 ccatgaggac aatgaccctc cagatgtaga tcagcacagt ggatcagaag cccctaataga 360  
 tgatgaagac gaaggtcata gatcggtatg agggagccat cattcagaag cagaaggctc 420  
 tg 422

<210> 102  
 <211> 418  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(418)  
 <223> n = A,T,C or G

<400> 102  
 atatttttta aacattttaa attaatatt tttgtaagta cattaattca gatgagttag 60  
 atcaatatga attttggaga agtggttaact gtagaatatt ttaaggcaga gcagttttgt 120

taagtataaa	taattgtaga	aactgagata	acagtattga	ttgatagcag	tcttaaaggg	180
aactgctcta	atgaaaagat	tcagataata	tagttttaac	atgttggtta	atatatatga	240
gttctaacga	tcccaaacaa	ctgagaatth	tgaagcatgt	ttaaaatctt	gtgacttcac	300
aagcgatgat	ccaacctatc	atttcacctt	tcaacattta	gcagttttgt	gcgtatagtt	360
tatgcaatgn	ggnactatgc	tagatgctta	gtcatcctac	cagtgggaaa	aatagata	418

<210> 103  
 <211> 421  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(421)  
 <223> n = A,T,C or G

<400> 103						
ctatatacag	acctatcgac	tatgggatct	ttgggaaaga	acaacagtta	gctttcttag	60
aaaatgtaaa	gaggtcactt	acacaaggaa	gatttatggaa	accaagtttt	cttaagaacc	120
ctggcttcct	aaaagatgat	ttgaggaacc	ctcccaacc	ctcagagtca	ttaagctcaa	180
attctcccag	tagtcagggtg	ccagaagatg	gcttatctcc	aagtgaaccg	cttaatatct	240
atgaggatga	ccagtggtgac	tcagattgtg	acacagacac	aaccacagat	gatgaatact	300
acctggatga	aaatgacaaa	gagtcagaac	tgtgaggctt	tttcaataaa	atgctttact	360
tttttcccaa	aagcttataa	tggactaagg	tnacatgtg	catgtgcatg	gaangataaa	420
a						421

<210> 104  
 <211> 410  
 <212> DNA  
 <213> Homo sapiens

<400> 104						
ctggattttt	acaatatcaa	gtcagccctt	ccctccatt	attcttatga	aagtctggct	60
gctatttcct	tctcagcagg	ttctctaaaa	gaagctctag	aaaggaaaca	aacattatta	120
ttggtagtag	aagtaaagtc	ctttgggggt	gtgagtcctt	actgtatata	acacttcctt	180
tctgacctgc	tatttaagcc	tcattacaga	agatgacctt	gaaattgaaa	tatttcacaa	240
ttattgggtt	cagttcctca	aaaacattaa	tggagacaat	taatataata	tcagagttga	300
atagaggtaa	atcattataa	tcttgctgta	tcagttattg	ctctatgaca	aaccattcaa	360
aaactcagtg	gcttgccctg	aatcccagca	ctttggggag	gccagcgtgg		410

<210> 105  
 <211> 410  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(410)  
 <223> n = A,T,C or G

<400> 105						
cacaaagcaa	atgtctaatt	taagcactta	atttttaatg	tgtgaaatct	ggatatatttg	60
tgattttctg	gcattttatt	ttcatttatg	tacagtaaaa	ttacaaaaat	tgcagatact	120
cttaaatggt	ggaatcctag	ttttatatta	tgttcaaagt	ttttttaagt	tggagagctc	180
ttaatTTTTT	atttgcattg	cagcaggggg	cattctaata	tagatacaac	atttgaaagc	240
agtattttca	aaaaatattt	gttcgctttg	ttatattttt	tatttagatg	aatagcatct	300

acttttcattt tcttttagaa acttgagatt tcaaaggagg atctagtaac attgaatctt 360  
taatagtttt ctgtgncaca atttttgaga cagataacct ttaaaaaaaaa 410

<210> 106  
<211> 410  
<212> DNA  
<213> Homo sapiens

<400> 106  
ccgctatctg ggtcaggacg cgacggccgc ggcgcgggac cttaggaccc gcgggctcca 60  
gggctactgt ccgtccgccca ctgcgcgccca gcaggctctg gtctccgctc tccaacagct 120  
gaaaggccgg cgcagtgaac acagaaacga aaaccaagaa atgccttatt ccacaaacaa 180  
agagttgata cttggcatca tgggtgggcac tgctggaatc agcttgctgc tcttgtggta 240  
ccacaaggtc cgtaaaccag ggatagcaat gaagttacct gaatttcttt ctctgggtaa 300  
tacatttaat tcaataactt tgcaagatga aatacatgat gaccaaggaa caacagtaat 360  
ctttcaagaa aggcaacttc agatactgga gaagttaaac gaattactga 410

<210> 107  
<211> 405  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(405)  
<223> n = A,T,C or G

<400> 107  
acgatttgta aggatgactg cttgtgttct gttggttggt aaggtaatct ttgtaggcta 60  
aaagtttagc attttctcaa catttgggac attgtatcaa ttgataacac taaacactat 120  
aaagaagaat aaataatcct tcctgttcaa gccgtgccac actgagctctg tgaacgtgaa 180  
aaattatcag tattatcctg ttccccagc acaatttcat tttgaaaatt ccattatcag 240  
ttttcgagcc aaacactttg gtagaaagaa gttagaaatt ttaatagaag gcagcacatg 300  
cgccctatta tctaaataaa cttggtatgn aaaattttaa atctgattat agaattagag 360  
atttccaata tttttggtgg anttttggtt ctggttttaa ctaac 405

<210> 108  
<211> 403  
<212> DNA  
<213> Homo sapiens

<400> 108  
attgtcacta aatttttata atcatagatc tttgcagttt actctctaag cctgatgaaa 60  
ttaagccaag ggctggatct ggcccatgga ttagaagccc attcattcct tatccaggaa 120  
aggaccagag aatagttaat taagaatgtg gctttaacag agctaaactg cttggatttg 180  
atttcttgcc ctgccactta ttgcctataa tttttgacaa ataatctaac ttaatctcag 240  
gttgtagagt gtgcataaaa tgggaatagg ccaggcacag tgatcatgcc tgtaatccta 300  
gcagtttggg aggctgagga aggagggcca cttgatcact tgaggccaag agtttgaaca 360  
tgcagtgagc tatgatatgc cctgcactct tggctaagca caa 403

<210> 109  
<211> 398  
<212> DNA  
<213> Homo sapiens

<400> 109



ctcaatcttt	atgaatatat	ctaaaatggc	tacttaatta	atgttggttca	atgttggtccc	60
gatgaattca	gagattattg	gtatttggtc	catttctaagg	aagaataaat	taaactaatg	120
aagacatagg	cagccagtct	ggcatcactg	agcacacaga	cctagtatta	ttgacagagc	180
aggtggaaat	ctcctgagtt	ctgggcataat	ctgcggatga	aaacacactg	ccttcatttt	240
agagaggtgc	aagacagaag	ggctattgga	gacgtaaatt	tatgtttaaag	aacagagaat	300
gtccctctct	tttttcctta	ccttaaaaac	aaaacaaatt	ctttggatat	gatagtataa	360
aaatacaaaa	ccctctgctt	tcctgtaatt	ataatgct			398

<210> 110

<211> 398

<212> DNA

<213> Homo sapiens

<400> 110

ggatgaggcg	ctgcagtc	tgcgctttcg	acgccgccc	ggggcccagg	cggctgatgc	60
gtgtgggccc	cgcgctgatc	ttgggtggcc	acgtgaacct	gctgctgggg	gccgtgctgc	120
atggcaccgt	cctgcggcac	gtggccaatc	cccgcggcgc	tgtcacgccg	gagtacaccg	180
tagccaatgt	catctctgtc	ggctcggggc	tgtcagcgtg	ttccgtggga	cttgtggccc	240
tcctggcgtc	caggaacctt	cttcgccc	cactgcactg	ggctcgtctg	gcactagctc	300
tggtgaacct	gctcttgctc	gttgccctgct	ccctgggcct	ccttcttgct	gtgtcactca	360
ctgtggccaa	cgggtggccgc	cgccttattg	ctgactgc			398

<210> 111

<211> 394

<212> DNA

<213> Homo sapiens

<400> 111

gtaaaacagc	agcatggtaa	gttaaaaaaa	aatcagataa	tagaaatggt	aaaacaagaa	60
tggaatttat	taagtgttaa	aaattttaca	tttttaaact	tcagagattt	aagtccactg	120
atgttaaaaag	ctgccttgta	gtagaaatag	tataatgtgg	aaaaattagt	ctgtcctttt	180
taaaaattgg	gaaacaattc	tccaacatct	cttgaaataa	ctagagatat	ctggggagggt	240
taccaaacct	gaatgaagag	tctcaaattc	caagaaagca	ttgtgtacat	tttgcttatg	300
aatattggta	gttctgtatt	gtataataaa	tcttactcct	tgacttggtt	atatgtaatt	360
ctgggctcct	tttttatatt	ttagatggaa	caga			394

<210> 112

<211> 394

<212> DNA

<213> Homo sapiens

<400> 112

atgatccttt	gctgcctaac	tacctcaacg	gcttcgagtg	tttcgtctgt	gactacgaac	60
tggtctcggt	ggatgccgag	aaagcccacg	cggcctctcc	cggggacagc	cccgctcttg	120
agccccacat	tgcccagccc	tcacacatgg	actgccacgt	gcccacacct	ggctttggca	180
atgtggaaga	gattcctgag	aatgacagtt	ggaaagagat	gtggctgcaa	gattattggc	240
aaggtctgga	ccagggggaa	gctctcactg	ccatgatcca	caacaatgaa	acagagcaga	300
cgaaattttg	ggattaccta	catgaaatct	tcataagagag	gcaacatctc	taagtgcctt	360
tgcaagagcc	tttaacttgg	cggagctaag	gaga			394

<210> 113

<211> 396

<212> DNA

<213> Homo sapiens

<400> 113

ggctgccctt	cttccctgcg	gagggagggc	ctgggcgggc	gcgttggcgg	gagggaggtt	60
acctttccca	gtctcgctct	ggccgcctga	gccaggagga	agcagcggcg	aggtctgcgg	120
gaggcatggc	gggagctccg	gacgagcgcc	ggcggggccc	cgcggcaggg	gagcagctgc	180
agcagcaaca	cgtctcttgc	caggtcttcc	ccgagcgtct	ggcccagggg	aatccccagc	240
aagggttctt	ctccagcttc	ttcaccagca	accagaagtg	ccagcttagg	ctcctgaaga	300
cgctggagac	aaatccatat	gtcaaaacttc	tgcttgatgc	tatgaaacac	tcagttgtgc	360
tgtaacaaa	gatagacact	tttcttgoga	agactg			396

<210> 114  
 <211> 385  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(385)  
 <223> n = A,T,C or G

<400> 114						
ctgcgaagat	ggccgctgcg	tcctcatcgg	attccgacgc	ctgcggagct	gagagcaatg	60
aggccaattc	gaagtgggtg	gatgcgcact	acgacccaat	ggccaatatc	cacacctttt	120
ctgcctgcct	agcgcctggca	gatttacatg	gggatgggga	atacaagtgt	ctctctagaa	180
gtgcctgggtg	tggaagaaaat	gtttgctgaa	tgaataataa	aaacatcaac	tgccacttat	240
tcctcagtag	cacttacagg	ttctgtaact	cattatctca	cttgattttc	accacatacc	300
atgaaagtat	caccattctg	caagcgggaa	acctgagatt	cagaaagntg	gtggtagggg	360
accttgggccc	tggtgggcag	caagc				385

<210> 115  
 <211> 487  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(487)  
 <223> n = A,T,C or G

<400> 115						
tagtatactn	aagttttcnn	nnggaaagcn	cccngncttt	nagcaggatc	ccatcgacag	60
caacggctgg	tttatttggt	caggcagtgc	ttttacatga	agacaaaaag	aaacaaaaaa	120
caacaatatt	tttgagtccc	cagtcaggta	gcctttccag	taaatatatg	actcagggaa	180
aagcctcagc	gaagaggacc	cagcaggaat	catgagggaa	ggaaaatgca	gcactctaaa	240
tgccactca	ggcgttccta	ttcactcgga	aaattaggtt	catttcacag	gacacagcag	300
tgtagatcag	gcttcaactt	aacatttaag	ggaaatgtca	gatttttttt	taatttaaatg	360
aaattgttaa	tgaggaaaaa	tttttaatat	agtcttatct	accacacatc	cccatagatt	420
taaggatttt	aatagaaagt	catgatgtat	gtattttaagc	cacgttaaaa	gaaaaaatat	480
actatgg						487

<210> 116  
 <211> 415  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(415)

<223> n = A,T,C or G

<400> 116

taataagatg	ttataaaaaat	ataacattttt	aaaaaagaaa	gggccagacc	ttaagcgag	60
agctagaaca	atattttttta	aataatgggg	ggaaaagggg	gcacttttgg	aatttttagaa	120
atcaggtagt	atacttttttt	tttttttnnaa	anggggtttt	nccttgtngn	taaggnnggt	180
ttnaancncn	gggnntaaan	nantcntcnn	gcttgggcnn	ccaaangggg	nggaattncg	240
ggctnnaccn	ncngnnccna	ccnggaaaaa	ggggtttnaa	aancnggggt	ancnnggccn	300
tttggagnnt	taaaaanata	ntggntnaaa	nttnantagg	gcngggccan	ntcnnaangt	360
nnttngcann	ggnggaaaaa	nggccnnnaa	tntnganttt	ttttcccnna	ccctc	415

<210> 117

<211> 407

<212> DNA

<213> Homo sapiens

<400> 117

gccattcttt	ggtggtaata	tcattttcttg	ttgcaaagat	gatttgagac	actaactacg	60
ttgtaaaatg	ccccaaaatt	accatgattt	ccatcatagt	ttaagtacta	gttttcatta	120
ttgttggtct	caaattcaga	gatgaatagg	aatgatggat	aggatttatt	taagtatata	180
tcttaggtat	acattttattt	agtgtgtgct	gattaatgtg	aaagttaagg	tataaaacct	240
agagacaact	ttcagggaaa	aaaaaaagat	atcatattaa	atgtttttaga	agtagggatt	300
cccattctat	attgaagata	acatagtttc	aacacttgat	tattataatt	ttttgggggt	360
gggggaacat	gtaataaagt	aaatgtgtgt	agttgtagta	gagttct		407

<210> 118

<211> 405

<212> DNA

<213> Homo sapiens

<400> 118

ccagcctggg	cgacagagcg	agactccatc	tcaagaaaaa	aaaaaagaat	tttcattagt	60
gctggccggg	tttcaaattg	caaggggaaca	tgggaactat	catgtggcaa	tgtagttagt	120
gttaaacttt	gtgtttgtcc	aaatccctgat	ttatttttca	gttcatactt	ttctgggctt	180
gacatggctg	atgggtgtagc	tgaacccttc	ctaacactaa	aagccattta	atcttttctg	240
taataggagc	agaaaaatagt	taatcatcca	cctagtaata	taagattact	gggaatatta	300
tcttctatac	attaaaacag	ttctagtgtt	tagaataata	ccatacaagt	tttattttta	360
aattctagtt	attttccagt	cttacttaaa	tgtaatctta	gaatt		405

<210> 119

<211> 418

<212> DNA

<213> Homo sapiens

<400> 119

gtaattagta	tttgccatat	aaaaaatgtg	gcttgagcaa	gatgtacttc	ctgagtgacc	60
ctgggcaaat	tatgtaagtc	atccatgaaa	tggaaaaaat	aacacctatt	tcttgggggg	120
ggactaaata	aaagtgtctc	cttctgaggc	tgtggtgcta	aaatccttta	cgttggctca	180
ttggatcctc	atgtgtaaag	ttacttagaa	tggacggttg	tcataatgaa	tatgtggtaa	240
atatttaatt	cccttctaga	gtgatgtgct	gggccttggg	aggtagagag	atgaatcgaa	300
agggaatcct	ctgtctcagg	ctcagcttct	gctggagggg	gaggcagata	ttttcatgga	360
ttattacatt	cgaagggtga	tatggtttgc	tgtgtcccca	ccaaatctca	tctcaaat	418

<210> 120

<211> 411

<212> DNA

<213> Homo sapiens

<400> 120

gttttattaa	ttggcagtgg	aaattggaat	gtgatttaag	gaagaaaaca	gactttttctc	60
aaatggacca	catcatctct	cactcacagt	gacaatgctg	ctcctgtaat	tttghtaagaa	120
ttcacacaca	ccagctgtat	ttggaaaagc	catgtctcac	tctcgaatct	cagctgggttt	180
tcactgaaat	tcctggaggg	ctcatatttt	cttcacagt	cctcttgatc	tggtctgtct	240
tgtggcaggg	ctctaccagg	agggagtgg	atctggggac	acagtggctt	ccaagttttc	300
taaggttcat	gtgaaacctg	agtacattta	caaagctgca	agtggattct	agtgtgagt	360
cttcaggaa	aaaatcccgt	ttggccaccg	tgacctgcca	aaagttctct	t	411

<210> 121

<211> 405

<212> DNA

<213> Homo sapiens

<400> 121

ctacaatctt	tgcatgaaat	gaagaaaacc	ttttgactgt	tttttaaaaa	tcctttttct	60
tttctcaagt	tctagggggc	atgtgcacat	atattgttac	tcaacatttc	atgggaaagc	120
ggcagacctg	agctgaggaa	cagcgtgggc	agggagggaa	agacccaggg	tctggacact	180
tcttccaaca	caaaacctt	ccccaccac	ctcctgtccc	ctccccctcg	cccaccattg	240
taaaataatc	agaaacttgt	tctattttgt	ggcagtgaca	atagttttat	attaaaagaa	300
aaaatacagt	tttcatacag	caaaatctat	acaatatcat	tgttttattt	aatataaaga	360
tcgtaccca	ccttccttcc	atgggtccac	cctccacgtt	atttc		405

<210> 122

<211> 419

<212> DNA

<213> Homo sapiens

<400> 122

cacaccaggt	atgtcacaac	ttgtgctttt	gcaccttaata	cccttttact	tgctactgggt	60
tcaatggaca	aaacagtga	catctggcaa	tttgacctgg	aaacactttg	ccaagcaagg	120
agcagagaac	atcagctgaa	gcaattttacc	gaagattggt	cagaggagga	tgtctcaaca	180
tggcttttgt	cacaagattt	aaaagatctt	gttggtattt	tcaagatgaa	taacattgat	240
ggaaaagaac	tgttgaatct	tacaaaagaa	agtctggctg	atgatttgaa	aattgaatct	300
ctaggactgc	gtagttaaagt	gctgaggaaa	attgaagagc	tcaggaccaa	ggttaaatcc	360
ctttcttcag	gaattcctga	tgaattttata	tgtccaataa	ctagagactt	atgaaagat	419

<210> 123

<211> 391

<212> DNA

<213> Homo sapiens

<400> 123

tatacatttt	taatacattt	tacttttctc	gcattggactg	ttttcttcac	gttgagttgt	60
attttaagtg	tttcatggta	aactttcctg	agatgtttgc	taatgttaat	ctgcttaata	120
gttttttttt	aaattgaggt	gtatgtacat	acaataaaaat	gtgtatatct	tggctgggca	180
tggtggctca	cgctgtgat	cccagaactt	cgggaggctg	agacagggtg	attatggatt	240
cttaattttac	tacagtttag	tttatgttag	ttggttttat	tacttcccag	gaaatgcaag	300
aaccgtacat	ttagctcttt	acctccttct	tgctctttgc	cctattgatg	gtatattttc	360
ttataaacct	ctaaagcaac	agtattattg	t			391

<210> 124

<211> 393

<212> DNA

<213> Homo sapiens

<400> 124

aacgaatatt	gtagtagac	ttaataagta	acccatctgt	atacatcact	acttttttaa	60
tgtctgtggt	tacttttgac	aataaaaaatt	ccaaatacaa	ctgaagtcaa	aatttttcat	120
tttttttctc	tgacaacaga	aatcaaaaagt	gcaattgggc	attgtttaat	gttccaaaaa	180
ttcctttctg	acttgaaaaa	aaaatgttat	tatagaggca	ttttactttc	agaagttaag	240
aattcctgca	tatgagttaa	gaaaactaat	ggagttacga	gttaccagcc	tgtaagtttt	300
tatcttagga	aatatggctt	tctaaaggca	tcattttattg	tcaggggaata	aaaagtaata	360
aaataaaaaag	tcataactttt	tctgcccttt	ttc			393

<210> 125

<211> 400

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(400)

<223> n = A,T,C or G

<400> 125

gtctacttta	atcatcaata	tgtgtttctc	tgaacatacc	ttatactttc	ctagttcaca	60
tctaagataa	tatgcttccc	tctgcctgac	acaccttaca	cattcttaag	aaccagctt	120
tgacatcact	tccatgaatc	ctaacctgaa	attaactctg	tcaatcttaa	ttacagtcac	180
ctctgacctc	tataaagctg	tacttgtttg	tagttattta	tctagcaatc	ttttctccac	240
tattagattg	ttagatccta	gaggacagag	atcatctttt	ataaatcctg	ggctctcctt	300
cacaatgtca	ggctatagaa	aaaatgatat	tacctataat	aatagctcag	ttaatatggc	360
cattggaaat	ggcctgaatg	ctctgnacta	aggtnnccat			400

<210> 126

<211> 401

<212> DNA

<213> Homo sapiens

<400> 126

ctagaattga	aactactagg	tcaaatcatt	cattttttct	ttctctctca	gaaaattctg	60
ccaaccctgg	gaaatgccag	tgttactgtg	ttttcaccga	cactggatgt	tatcagtcct	120
tatttggttg	cagctctgaga	gtcagtcaaa	agatgggaac	tcagcattga	atatgttaact	180
tctgtaatta	tgaagtact	atccttagga	gaatatgttc	ttgtatttag	gttgatttct	240
agcccttcca	aaaatgagaa	tttccttaca	ttctctggaa	ttccatgtcc	taggctcagt	300
aatgaagcta	atccctccct	cctgggggtg	tctgagtatt	gtatcgaaaa	ataaaaaatg	360
tctgacatag	cttattaact	ccattaacta	tgtaggtctc	t		401

<210> 127

<211> 397

<212> DNA

<213> Homo sapiens

<400> 127

cattacctga	aatattttatt	cgtcaaccc	cctctcccat	cctctgtgga	ttttactcag	60
agccagggaa	gttctgggtt	tctttgcatt	aacaaagtta	tgatgttttg	tggaatgaaa	120
aatggagcaa	ttcgagtcta	tgtcctaaat	caaaatgatc	cttcattgac	cagtttggtg	180
gactactggc	acttcaatat	gcatgacaat	aattatggat	gtattaaaag	tattgctaata	240
agctttgatg	atcgtttctt	gggtactgct	ggagcagatg	gcaatatctt	tgttttcaac	300
attttttctg	aatttatgct	aaggaaagac	atgaaggcca	aagttccatc	ttccaggttt	360

ggaattgaaa cagagccaat tccagaagac attgaag 397

<210> 128

<211> 395

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(395)

<223> n = A,T,C or G

<400> 128

gtgtgatctc	tgcacacacc	agctccccct	tgctttctgc	catgagtggg	ctgaggctct	60
cacaaaaagc	caagcaaagg	ctggcaccat	gcttctagta	cagcctgcag	aactgtaagc	120
caaataaact	tcttctttgt	tttttttttg	ntngggttgn	ttttttttca	gaaaattacc	180
cagcctcagg	tnttcnttaa	cancncaaag	gggctaaaaac	acagggtcnt	agggatagca	240
ggccccctgng	ccaanccaaa	ncttaaant	caactgttaa	tgcagganga	ttngtattga	300
accatnaatt	ttacactgcc	tctcaatgnn	ggngncagca	tttaagggta	tttaaaaaat	360
acancctgaa	ggttcataaa	ggttcattta	aaaaa			395

<210> 129

<211> 383

<212> DNA

<213> Homo sapiens

<400> 129

gtggccatca	agccaatgcc	tttgattttt	tccctggactc	accttggatt	ggagaaaagt	60
taatcagttt	ccagaaagg	aagagacca	gtggagcagg	gccttttgag	aatgaaaact	120
gaccttttct	ttcactgtta	ttgttgat	ttccctggaa	atatattcac	ccccagtttt	180
cctgggccaa	tataaagtgt	ttcattttgc	tggcttggaa	atgttattct	ctctccttgt	240
tttgaagtgt	taaatgtgtg	gttttcaaaa	tgcattttctc	aaaccactct	acggaaagac	300
agcaaataat	ctgataaaaa	aatgttcaag	gatgcctgta	atcccagcac	tttgggaggg	360
aggccgaggt	gggcaaatgg	ctt				383

<210> 130

<211> 372

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(372)

<223> n = A,T,C or G

<400> 130

cgacagcaac	ggatctgtta	tctcaacttg	agctttccca	aagcctaagg	acggtccttg	60
cctgtaaaact	ccaagatgtc	attttctctg	tttccatcac	acccacttca	tcagtcgctt	120
tccctaattc	tcaggagacc	ccagagcatg	tgcccttccc	caccttgctt	tactcagccg	180
ctcctggact	gtctgtccaa	cctcatgact	cagccgggct	tcacaccagc	gcccacagca	240
aacaaacacc	aattggaact	cttgaccaga	atattttctaa	atgtcagctt	gtcctcacc	300
tccacgcagc	tgttgcttct	gttcccagga	gccattatt	ccacatggtt	atgactcang	360
gcactgaatc	gt					372

<210> 131

<211> 392

<212> DNA  
<213> Homo sapiens

<400> 131  
gagatgatgg ctgatgaaga ggaagaagtc aagccgatct tgcagaaatt gcaggaactc 60  
gtggatcagc tctactcatt tgcgactgc tatttcgaga cacatagtgt tgaggatgct 120  
gggaggaagc aacaggatgt gcggaaggag atggagaaaa ccctacagca gatggaagaa 180  
gtagtgggtt ctgtccaggg caaggcacia gttctaattgc taactgggaa agcactaaat 240  
gtgactcctg actatagccc taaggctgag gagcttctgt caaaggctgt gaagctggag 300  
cccagagctg tggaagcctg gaaccagctg ggtgaggtgt actggaaaaa aggggatggt 360  
gcagctgcca cacctgcttc tcaggagccc tc 392

<210> 132  
<211> 396  
<212> DNA  
<213> Homo sapiens

<400> 132  
gctttacttc tgattgagct ctgttattct ctggcacagt cttcctaaga ccaattaata 60  
gtgatcatgg cagtcagcct gttatcttag gattcaaaga aaatatctac ataaatatag 120  
cagtcaatcc attgaagtag tgactacaat actgaacctg aataaaattt agtttactaa 180  
atgaagatat gcagattcaa taaatgatta tggaccaaca tttcatcagc aactgctata 240  
aatgtgaaaa atcattattt ttcatatata cacatgatca tcagaccac taaaggtaat 300  
tcagtgtgacc aaaactttct gctgctaaga gattaaaatg catgttaatc agtagaattt 360  
aagaaagcca gagtaaaatg taaattgtga tgaaat 396

<210> 133  
<211> 415  
<212> DNA  
<213> Homo sapiens

<400> 133  
gtgtgtgtgt gtgtgtgtgt gtgagagaga gagagagaga aagagggtgt tatctgggtt 60  
atgagtcatc atacagcagc ttagcttagc cctaagtggtt cattctcaga gttacaagag 120  
cagcaagagg gcgagcccca gtggccagat gcaatggtgc ttttgaagtc tgcataaggc 180  
atgtttgtta ttctcatgtg gccaaagtcca ggtcagtggt ggattttacc aagtgccttg 240  
atacagagag acatgaacaa atttggggcc atcactatgt cagtctacct caaaagctct 300  
tccaattttt aattgttggt aactaataaa aattaataag atttttaggtg ctaacattgc 360  
aggttaaaca aaacctgcag tgggctagat ctgccttggt taaccatttt atcat 415

<210> 134  
<211> 419  
<212> DNA  
<213> Homo sapiens

<400> 134  
atcaccacta attccagaac attgacatcc cagtaagaaa ccccatatccc attagtcact 60  
ccccattcct cctactccc agccgctggc taccactaat ttactttctg tctctatgga 120  
tttgctgatt ctggacgttg catataacta ggaacataac aacatgctac tagcttcttt 180  
cacttaacat aatagttgca aggtcatcc atgctgtagt atgtttcagt actttcttcc 240  
tccccctacc cattatacca ttactgatg atagaattat actggaaaaa tgtcacaaaa 300  
gaacaatctt tgaatagaac cgtttactaa gtgaaacatt tcttgaaata taacatgcga 360  
aagattgtca aacatgtcag catagaagcc cttggattta tataaagact ctgcgcgagg 419

<210> 135  
<211> 408

<212> DNA  
<213> Homo sapiens

<400> 135  
cttaatatag gatataagag ttttcttggga ctttgaactg tggacaaaat ctacaggaag 60  
gggaagaggt gaatatcca aatcagacac tggcaagagc gaaggtgcag agacaggtat 120  
gttcgtggat ttctgggcta tggttaacga atagaccatc tggagcacat ggttgatttt 180  
ggcgtcagta gaaggctaag ttggaaagc aggattacat cagattttgg agggcttgaa 240  
tgttaagggt gggagggag tctttcactt ttatcctgca ggcaatagag agccattgaa 300  
aatttttatt ttcggtagtt tattaggaag atgaatctgc cgagtgggtt ggaaacaaga 360  
aagattggaa gataaaccaa ctggataggg tcgtctggat ttcaaata 408

<210> 136  
<211> 404  
<212> DNA  
<213> Homo sapiens

<400> 136  
gacgtggcct gtggcacagg cctagtggct gccgagctgc gggctccagg cttcctccag 60  
ctgcatgggg tggatgggag cccagggatg ctggaacagg cccaggcccc cggcctctat 120  
cagcgccctca gcctctgcac cctggggcag gaggctctgc ccagcccga agggaccttc 180  
gacgcgggtgc tgatagtcgg tgccctcagt gacggccagg tgccctgcaa tgcgatacct 240  
gagctacatg tcaccaagcc aggtgggctg gtgtgtctga ccaccaggac caactcgtcc 300  
aaccttcaat acaaggaggc tctggaggcc accctggaca ggctggagca ggctgggatg 360  
tggaaggcc tgggtggctgc ctgtggaccg ctgtggaccg ctgg 404

<210> 137  
<211> 421  
<212> DNA  
<213> Homo sapiens

<400> 137  
ctataatgaa gaggtccttg acttatttga taccactcgt gatattgatg caaaaagtaa 60  
aaaatcaaata ataagaattc atgaagattc aactggagga atttatactg tgggcggttac 120  
aacacgtact gtgaatacag aatcagagat gatgcagtgt ttgaagttgg gtgctttatc 180  
ccggacaact gccagtacc agatgaatgt tcagagctct cgttcacatg ccatttttac 240  
cattcatgtg tgtcaaacca gagtgtgtcc ccaaatagat gctgacaatg caactgataa 300  
taaaattatt tctgaatcag cacagatgaa tgaatttgaa accctgactg caaagttcca 360  
ttttgttgat ctgcaggat ctgaaagact gaagcatact ggagctacag gcgagaggca 420  
a 421

<210> 138  
<211> 475  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(475)  
<223> n = A,T,C or G

<400> 138  
ccgattnttc natnnnactt ctggaaatcc cncaggattn atcgattcga acccggttget 60  
gtcggcacca ttgcactcca gcctgggcca caagaatgaa actccatctc aatcagtcag 120  
tcaatcttgc agatattgga gtgtttcaga tttcagattt ggggtactta aactgtacgt 180  
gaaaattagc tgctggggag gagaggaatt ggaatatgta acatggactc ccacatttta 240



aggatttttc	taggactgca	tctttctctt	aataagtcag	atccttattt	ggttgaaaat	300
gtttactgca	tgactatcac	tgactatgta	agatgctgat	gtacaactct	atgacttgaa	360
gattgagttg	cttctatggg	aatatgacac	catttggaatt	aatttgggtct	caatatttta	420
aagaagttta	atgaattctg	ttcatataaa	atcaagggtca	ataatgcggg	ctttt	475

<210> 139  
 <211> 485  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(485)  
 <223> n = A,T,C or G

<400> 139						
tttgaactcc	ataatacaag	ctntnagatc	ctttngccng	atcccatcga	ttcgggcttc	60
cgttatggtc	ttttccatt	tttttttga	cttctaaatc	ctttgcattt	tcgtataaaa	120
tttgaagtca	acttctatca	acttcaggcc	aggcccggtg	ctcgtgectg	tataatccca	180
gcactttggg	aggccgaggg	aggcggatca	cttgagggtca	ggagttcaag	accagcctgg	240
ccaggatggt	gaggcccat	ctctactaaa	aatgcaaaag	agttggccag	gcgtggtggc	300
aggcgctgt	aaaatccag	ctactcggga	ggctggggca	ggaaaattgc	ttgaacctgg	360
gaggtggagg	tttcagtga	ctgagatcgt	ggcattgcac	tctagcctgg	gcaaccaaga	420
gtgaaactgt	ctcaaaaaa	caacttttat	caatgctgca	aaaanaaagc	ttctgggatt	480
tataa						485

<210> 140  
 <211> 397  
 <212> DNA  
 <213> Homo sapiens

<400> 140						
ggcggctcac	gcctgtaatc	acagcacttt	cagaggctga	gtcggggcga	ttacttgaga	60
tttggctca	atctcctgac	ctcgtgatcc	gcctgcctca	gcctcccaa	gtgctgggat	120
tacagggtga	agccaccgcc	cttggcctgt	ttttgtttt	aagagatgag	gtctcactgt	180
gttgcccagg	ctggacttga	actcctgggc	tcaagtgggtc	ctccacctc	agccttccaa	240
gtagctggga	tttataggca	caggtgtgtg	ccaccgtgcc	tggtgtgga	gggttcttca	300
gaggcagagc	cctgggttgg	tttgaatcct	tcatgctttg	tgctgctacc	ttggttctact	360
tagtacagag	ggcaggggga	gtggaaaggg	agaagtg			397

<210> 141  
 <211> 399  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(399)  
 <223> n = A,T,C or G

<400> 141						
attcgacatt	gcaccacgaa	atgcagtgtt	cctgttggtc	tctcacagat	gccgtctatc	60
aggctgggga	ggtttctttc	tgccctcggtt	gctgagagtt	ttaaatttca	tgatgtantt	120
gtccactgca	gaaacctanc	anaaaactan	ncaaattaca	ccccaaan	atagaattaa	180
atngattntc	aaatgntaaa	ccaactctgn	tctgatgtc	ttggtgggct	tggtctgctg	240
tttctnaaaa	ctcttgantt	cacattcctt	nacgatgttg	gaannnaant	ttttgtgnnt	300

tncatttgtt	angnagnatt	ntttaatggn	ntnttncnaa	ctannccagt	tgntttttaa	360
nnnaccanna	ncnctcccan	ncctattttn	ntngtgga			399

<210> 142  
 <211> 370  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1) ... (370)  
 <223> n = A,T,C or G

<400> 142						
gccccaaagc	gggccagcct	gctggagcgg	cagcagcggc	gagcagagga	ggcgcggcgg	60
cgcaagcagt	ggcaggaggt	ggagaaggaa	cagcggaggg	aggaggccgc	gaggctggcc	120
caagaggagg	ccccggggcc	agccccgctt	gtgtccgcag	tcccgatggc	gactccagcc	180
cctgctgccc	gggctccagc	cgaggaggag	gtgggcccc	ggaaggggga	agngtnggaa	240
gtntttntn	ancncnttc	cnangnctt	tnttctcnnn	gancnnncat	ttgtactttt	300
tantntnnn	ncnnnancn	ntattcatnt	ntncaaaanc	caccatnntc	nngtntntaa	360
nancnttaac						370

<210> 143  
 <211> 418  
 <212> DNA  
 <213> Homo sapiens

<400> 143						
ggcccttctt	cacagcagat	gtatgatgat	tcctggacag	tggtcaggat	attgcctttt	60
tgtggaactt	ttaacagaaa	aggtaactga	aggtttgagc	atgtcccctt	tacaggggcc	120
atctttcccc	cacctgtgta	gaggtacatg	ggtctttcag	cggtcctaac	aacacaccta	180
agtgtccttg	agtctcacct	tattgtgagt	gttgcctgta	agcagtgttg	tcactaaatt	240
tatttcttct	ttaatttggt	aatttaccag	aatatcttct	tttctagcct	cgatgattat	300
agctcggtga	aatgcctgaa	gcatttttga	tttcttctct	cttgcctcatg	agaattattc	360
caaaaaaaaa	ttttggcttc	caccagtgtt	aaaaattggt	ctgtacctaa	ggttacag	418

<210> 144  
 <211> 404  
 <212> DNA  
 <213> Homo sapiens

<400> 144						
gcatttttga	aagtgaaaaa	aagctggtga	aatgatgaac	agtgggttaa	actgaacatg	60
agagggaaca	aggaatacct	tgtggtgtaa	aatctctgtg	cttagctgtg	ccaaagaatt	120
tttttcagga	aaacttgca	aagatcttgg	cagtgggtgc	ttgggcttta	tctttttaag	180
taagtgttca	ttactgctta	catcattggt	gctattatta	ttttgataag	tgtgcattgc	240
caaggatgct	ctgtgtcagg	ggttctccaa	ctcccatgtg	cacgagaatc	acacacaggg	300
cttgtgaaaa	tcgcagagtc	cataactccc	ccagagaact	ggattctgca	ggtcttgtct	360
tggaagctgc	aattttggcc	tttgcatata	ttaaaatttc	ttgg		404

<210> 145  
 <211> 367  
 <212> DNA  
 <213> Homo sapiens

<400> 145

gtgacatctg	aggaattaaa	tcatacttcc	agatggtttg	gtctaatagta	tacagtttag	60
gaaagtttat	tcttttttat	tttattttat	ttttttaaat	ttcttttaga	aactgggttt	120
tgctctgttg	cccaggetga	tcttaaacct	ctggcctcag	atgtggagac	ccagctggga	180
ctacaggcat	gagccaccac	gctcagtaga	aagtttggtc	tttttcagtt	ctgtcattga	240
aattctctaa	gtgattggat	ttttaaaccc	cttccccctt	tcatgaaatt	aaacatcaaa	300
taaataaaac	tacattatat	aattatttag	tcagaaatga	ctgttgccct	ctcttttttt	360
tttttttt						367

<210> 146

<211> 392

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(392)

<223> n = A,T,C or G

<400> 146

gacagttgaa	gacgacttac	tgctccaaaa	accatttcag	aaagaaaaac	atggaaaggt	60
ggcccataaa	caagttgcag	cagaattgct	ggatagggaa	gaagcaagaa	atagaaggtt	120
tcattctata	gctatggatg	cttatcaaa	acatagaaag	ttcgtaaata	actatatttt	180
atactatggt	ggcaaaaaag	aagacttcaa	gcgtttgggg	gaaaatgaca	agacagactt	240
ggatgttata	cgagaaaaatc	atagattcct	atggaaatgag	gaggacgaaa	tggacatgac	300
ttggggagaag	agacttgcta	anaaatacta	tgataaatta	tttaaggaat	actgcatagc	360
anatctcagt	aaatataaag	aaaataagtt	tg			392

<210> 147

<211> 376

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(376)

<223> n = A,T,C or G

<400> 147

attcctttga	gacacaagcc	aagttttcgc	cctgtctcct	gagaccattt	ccctacgctt	60
tgctgctgct	gagagttacc	tgaggcactt	gttaaaaatt	cagactccca	ggtccctccc	120
ctcggagagg	ctgataaact	gggtctggga	aggagcctgg	ggantttaat	tattcacaag	180
atgccccaga	tganactcat	caccaagcaa	attttggaat	angctgncaa	cagcgcccnt	240
aaatcggaat	cannttngna	gannnnatat	ngaananana	atcangggcg	ntatttagct	300
nncaaggntt	naagancann	caggncggan	anggancann	ngncnagaga	cnacnnttnt	360
nnangacnnn	caaaca					376

<210> 148

<211> 388

<212> DNA

<213> Homo sapiens

<400> 148

ccgttgctgt	cgactgaag	tccccaaact	tgtcttgatt	ggcctcctct	cttcagggaa	60
attgagaaga	atgagagaac	cagtgattaa	agaggagatg	gagggagaag	agagcctaag	120
gatatggaag	aataaaggaa	gaaagtatgt	gatttaaaga	agaggagaaa	ggagagagag	180
aggcagttaa	atctggggat	gtgggataat	agacttctaa	ttttgggctg	agtagaaggt	240

atatttttggg	agaagtac	acttggttttc	tttacttgcc	caggaaccca	tggtgtggct	300
cattgtgtga	tttgaaagg	tgaaatgcag	ggttatgtat	gatcagaatg	gccaacacac	360
atatagccag	gagtgttcta	gagacctt				388

<210> 149  
 <211> 408  
 <212> DNA  
 <213> Homo sapiens

<400> 149	
gctgaacgcg	60
ttccttttctg	120
tcttgaccca	180
tgtggcttaa	240
atcccgaacg	300
gcctgggcct	360
gaaaaataaa	408

<210> 150  
 <211> 450  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(450)  
 <223> n = A,T,C or G

<400> 150	
tttgnncnt	60
ctcatcattg	120
agagaatctt	180
ttcacctggg	240
ccagccaatt	300
tactgcaaca	360
gttaattgga	420
catacttggc	450

<210> 151  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<400> 151	
cattaaagtc	60
accttaccct	120
ctgttttctg	180
ttggaactta	240
ctactaaaat	300
atataccagt	360
aaaaatcctg	401

<210> 152  
 <211> 410  
 <212> DNA  
 <213> Homo sapiens

```

<220>
<221> misc_feature
<222> (1)...(410)
<223> n = A,T,C or G

<400> 152
ttccttgtgt attttggata ttaacccctt accagatgta tggtttgcaa acattttctc      60
acttaaatgt gtatgtttta tgtaaggaga ttgcaattat aatttactat attgttcttc      120
attattgttt gagctaaaaa ttgttaaata cgcataatgaa cttgaatata ttatacatc      180
acatttatgt tatgtattta cttatatctt gttataaaatc acgtgaacac aaatttactc      240
ttaaactcag ttaactacca aaacttgaag tgtttggaaa tcaaatttgt gtgttttcca      300
tgtgttctgt tgtatttttt taatggntgn tccagaaacta agcgagttgc atattcacag      360
ggccaagaac agctgagaaa cctatcttga gtaattggga agaactgagt      410

```

```

<210> 153
<211> 373
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(373)
<223> n = A,T,C or G

<400> 153
caagatttca tctattgaat ttgggtacat ggtatgtttt agcagcgttt ttgttttttt      60
ttttcttcct acncccaggn aaaaangctn tagnatttgn gaatgttggc agcaaagtac      120
tgtnccttac anagggttct ntgtctcccc aagnacccaa atgtggngac ctggnggcnt      180
caggacagng nggntcaccc caggaanccg gggganaacc cgntgcacta angctgtggt      240
tgccttngga ggttgccctn actttnnaggc canctaacct tgcctcccct gtttaaaaaa      300
ncenttnnat ncnanngggg aaccennnca antnccctn aantnnaant ctngnccctn      360
ttnnnnttcc ccc                                     373

```

```

<210> 154
<211> 368
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(368)
<223> n = A,T,C or G

<400> 154
gaagactcaa taatgtcatg tcagttcttt ccaacataac catatattct gtgcagttta      60
tggacttgct aaattgagat gcatttaata tacccaatca aaatcccagc aaatgatttt      120
gtggatatct ccatangcnt annacaccta nnaaaccagc aatancatct acatcnttgn      180
aanttggaaat acgacactac ctgacttnaa natttactgt acgctgcctt aatnatngnt      240
tnacngtcng gngnnttaat atacatctaa atctttatnt ctttnnttna aatnnnnana      300
tnttnancnn ccnnttcntc ntttgatnnt tncnnaaag cttatgnntt tctttatnaa      360
nanttctct                                     368

```

```

<210> 155
<211> 380
<212> DNA
<213> Homo sapiens

```

<220>  
 <221> misc\_feature  
 <222> (1)...(380)  
 <223> n = A,T,C or G

<400> 155  
 gaaaatattt ctaaaagcat caaagagatt ctagatatgt gaacttccat gtaaataatg 60  
 gtcattattt acaattaaga aatcctggcc gggcgcggtg gtcctgcct ataatcccag 120  
 cactttggga ggccgaggtg agtggatcat gaggtcaaga gattgagacc ctccctggcca 180  
 acatggtgaa actctgtctc caaaaataca aaaattagct ggggtgtggtg gngngcactt 240  
 gtngnncgg tncctganan gctnaggcan gaaaattgnt ttaancntgn ngggggaatn 300  
 ccnntnnnn ngcccaaaa aaaannttt tnnngnaatn nggggggggn tccttttttn 360  
 cccnntcntt tttttttttt 380

<210> 156  
 <211> 461  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(461)  
 <223> n = A,T,C or G

<400> 156  
 tcgaannact ncnnaaacnn ctacttgntc tttttgcagg atcccatcga ttcggttcat 60  
 ctgcagccct tgccctgagga taaggtttat gattgggtaa agatcagaat accagggcca 120  
 gctaaggcaa cgactccctc cccaaaccct tgggacctca gccagtcca aggctgccct 180  
 gacaatcagg caggctcccc accgtgaggt tanttttttn tttnttttcg nnacncnntt 240  
 cnntcttttt tnttttngtg gnnacacncc ttttactntt tcattcctcn caangtgtnt 300  
 nttttaanaa nanancactc nttengtcnn tnggnngnnan gngtatttnn nncnnntn 360  
 taantanaaa tagtngnntn ggctctncc tnttcagnan aanaaatntg gntatnaaan 420  
 nntccttct atgcnggggn aantnanngc actcnnnaaa a 461

<210> 157  
 <211> 403  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(403)  
 <223> n = A,T,C or G

<400> 157  
 aactgaaaat gaaggatcag tcattgagaa aactacaaca ggaaatggac agtttgacat 60  
 ttcgaaatct gcagcttgcc aagagggtag aactacttca agatgaacta gctctaagtg 120  
 aaccacgagg caagaaaaac aagaaaagtg gagaatcttc ttctcagttg agtcaagagc 180  
 agaagagtgt ctttgatgaa gatcngcaat cnacgataga agagaatgac cntntttata 240  
 cnnntggntt gatctnnnnn atangncnnt tttttnnntc nttnttgcca nnaaaaaaac 300  
 ttntttttnc anttncncc cnnnnnnnnn nttntnnnng gntnctcat aaaannannt 360  
 tantttcttt tnnnaacnnnn nnttnttttn nccnnttttt ttg 403

<210> 158  
 <211> 407  
 <212> DNA

<213> Homo sapiens

<400> 158

aaaatattaa	acacaaacta	ccacctacct	cccgggccct	ggaatacagg	tttgaggata	60
cagtgttggc	agcttcaaga	agagaagacc	ttcttgccag	gacataaaat	gataccctcc	120
tctgggagcc	tgcttcgaat	agtgggactc	agggagataa	gaccttcttg	ctggattttt	180
atgacacaat	ctctttataa	ttttacaaat	aaaggaaaaa	agacccatgt	aagatatgtg	240
tgcccttcct	caggggtgtc	tgctgggtgt	ctgatgatgg	tgtcaggggc	gctaaggaca	300
ggataaaggc	ctggagaggg	tgcttggtgc	cttatgttat	cagcaccgtt	gtcctaggat	360
tcgtgagggg	attctggaac	caataaggga	gttgaactgg	acctgat		407

<210> 159

<211> 420

<212> DNA

<213> Homo sapiens

<400> 159

ggtatatgca	aacaacatth	aaagagctct	tcttattaaa	aaattttaaa	ttataataag	60
ttaaaattat	aataatctaa	gtgtttgtat	tacttccatg	ctacggataa	ggaaattgtg	120
tctcacagag	gtttcatgcg	ttgggtcaaaa	ttacacaaaa	agtaaaaggc	agaacctgaa	180
aataaggggt	cacatcttag	gactccaaga	tggtatacac	atttgacttt	tttgtcttta	240
aacttgctgt	gaacatthtt	ccacttttga	ttcttaagta	taaataattaa	gtgccttctt	300
tgtatttcag	tattaggctt	ttaagtcttc	tacttccaaa	aaaaaaatta	aaagtaaaat	360
ttaacaagca	ttctaaatat	tccaattatg	aaatatattt	catattatga	gaattttctt	420

<210> 160

<211> 382

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(382)

<223> n = A,T,C or G

<400> 160

ggtaagactt	atattccatt	gtggatgtat	gtgggaaact	ttaaattgtg	actttctttt	60
tttttngnan	acanagttht	gctnttggtg	cccaaactgg	agngcagngc	cnaaattgcc	120
ccnttgcnct	ccacctggg	ngatggaagn	naaacntgt	ntcancanca	ncaacaaatc	180
cnttgagta	gttnanctaa	agtacctaaa	taagganatt	tgaggnga	ggnggtcca	240
nnggtntncc	aaaggaaaa	gtaaaaanat	ttgggttaa	tnntaacc	agncan	300
aaaagagggg	agttaaaa	anacatctaa	anaggaggct	tancnttatg	aaaagtgccg	360
gaaatanctt	gntngtgttt	at				382

<210> 161

<211> 429

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(429)

<223> n = A,T,C or G

<400> 161

gtcctgacct	caagtgatcc	acttgccctg	gcctcccaa	gtgctgagat	tacaggtttg	60
------------	------------	------------	-----------	------------	------------	----

agccaccacg	cccgccata	aacatttttc	tttttggaca	aaaataacat	tattatagac	120
attttagaaa	atacaaaaa	aagaaaagca	aaattaaaac	atattcctga	gtgaacattt	180
tggtttatag	tttttgagag	ttttccgtgt	ggataaaact	cgggtggaaa	caaaaacctg	240
aaaaaaaaaa	aaactaaaaa	anaanccttn	ggggtinctga	gncccinctga	aaanttnrng	300
ggnggaaatn	cctattnngt	ttttcangtn	cntgttactt	taaatnaagn	ttttccancc	360
cgnggcccaa	anggggccca	gganggtttt	aaangcggcc	cancataaat	gggnaaattt	420
ttttaaaac						429

<210> 162

<211> 420

<212> DNA

<213> Homo sapiens

<400> 162

aggactat	ttt	tcacgtttta	atgccgagag	gtctctgtga	cgattttggt	tggttgcaat	60
tagggattct		gtgaagtcag	taatagagga	gttgtctgtg	gaattagtga	tggtggtttc	120
ggggcatgg		gatgggggtc	tgtgacgtcc	gttgatgggt	gtctgtgaca	gggatttctc	180
gggtcattga		tggggctctt	tgggatgagt	gattgggggt	tgggggtcag	tgacgggagt	240
ctgtggtcag		tgactgaggg	cctgtaggg	cagctatgg	ggtcgggtgag	gactgtgatc	300
agcttgcttt		ctgacctgag	ttgaaagttc	agttctttcc	atttcagcct	gtaatataaa	360
gattaacaag		ttttgatgtg	tagcaagttt	cgtattgggtc	aaatctaagt	gtttaaaaat	420

<210> 163

<211> 417

<212> DNA

<213> Homo sapiens

<400> 163

ataaacttca	gacctgcatt	tcagaatacc	atccagaaaa	tccattttga	cctcctgtaa	60
ccctccagct	tagcatgagc	aaacctaacc	tcactgtctc	ctccagctca	cttaacagaa	120
tttaatccac	ctattttttgt	aaactagcaa	ttctgaagat	gttctgagct	tcttctccat	180
caccatatac	actctcttgt	tcataagta	ctgataaatt	ttttttaaga	gacgggggtt	240
tggtctgtgt	gccagactg	gccttgaact	cgtaggttca	aacagtcttc	ctgcctcagc	300
ctcccaagta	gctgggacta	caggcaagtg	ccactgcgct	ggcttaattt	tacttgagtc	360
atgtgtctca	aatctggcct	ttcatcttgg	tccacacgca	ggccttcac	acctctt	417

<210> 164

<211> 394

<212> DNA

<213> Homo sapiens

<400> 164

atgctgtaga	ctgaattgtg	ttccccaaaa	ttcatat	ttt	gaaccctaa	tcccccatat	60
gactattgaa	aatagggtct	cagggtgtaa	ttaagataaa	atagagtga	aacctgataa		120
gacaggaagg	ccttataata	ataataagag	ataccagagc	tctctcttcc	ttgtgagaac		180
acaacaagaa	ctcagtttca	ccatgcccag	ctaattttgt	at	tttttagta	gagatggagt	240
tttattatgt	tggctaggct	ggtcttgaac	tactgacctt	aggatgatctg	cccaccttgg		300
cctcccaaag	tgctgggatt	acagacgtga	gctaccatgc	ccggcctctt	ccagtctatt		360
ttctaacc	ctt	ctccctcaca	ctcc				394

<210> 165

<211> 417

<212> DNA

<213> Homo sapiens

<220>



<221> misc\_feature  
 <222> (1)...(417)  
 <223> n = A,T,C or G

<400> 165  
 cttcaccctg atctcccaaa tacaaatacc tatgtaacca tattataata atcaagatta 60  
 agaaattaac atgaatataa tcaggaaatc aggcattact attataaaat ctattaactg 120  
 tacttaaat ttaccagttg tcccactgat gtctttcttc tgggtctaaaa cccaattcag 180  
 gatcacatgt tgcatttagt tacttttaat ctggaactta tgaacacttt gacaaatact 240  
 tgtcagtatt ttgtatatcc tctctcattt tgggttttgta ttgcattttt catgggttaaa 300  
 ttcagggttag gcatttttag caaaacatca aagtcatgtg cctcagngaa tttccatgan 360  
 ttggcccctt actgggtgatt ttaaccttga tcacttgnta agggggganct gncacat 417

<210> 166  
 <211> 493  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(493)  
 <223> n = A,T,C or G

<400> 166  
 gaaaaaaaaa nttttgaaac ccttttggn cncnttaata caagctactt ggtctttttg 60  
 caggatccca tcgattcgca acaaatcatc ctggagctag cattgcactc tcgagaccct 120  
 ctcttaataa ggacttcgga gatcacgctg agcagcagca tattgcagcc caacagaagg 180  
 cagctttgca gcatgctcat gcacattcat ctggatactt catcactcaa gactctgcat 240  
 ttgggaacct tattcttccct gttttacctc gccttgaccc agaatgaaga aaacatttgc 300  
 gatggaaaag tgactttgta atatcaaag ccaaagctac tatcattcag tgctacatga 360  
 actgtgactt taagaatttt ggtgaacttt gatatttttt gtttgtctga aagaaaggaa 420  
 tgtgtaagt aaagctgaaa gaagaataac caggatgatg agagctgtgg aagctgtatc 480  
 gccagggaat tga 493

<210> 167  
 <211> 414  
 <212> DNA  
 <213> Homo sapiens

<400> 167  
 ctggctccta ctacctgtct cactgtgttt cctactactc tccctgcccct tctcctctta 60  
 ataaacactg ggctcatggg gtttccttta acatgccagg catgcttgac cctgtcctgt 120  
 ctcagggcc tgctgttccc tctgacctga acattcttcc catagtgtct gcctggctcg 180  
 ctctctcact gctttggatt gctgctcaa agtcacctta tcaaaggcct ttcccaaagg 240  
 tttaaaaatc attctactat aaagacacat gcatacatat gtttattgca gcactattca 300  
 caataacaaa gacttggaac caacccaaat gccatcaat gatagactgg ataaagaaaa 360  
 tatggcacgt aagcaccatg gaatactatg cagcataaaa aagaatgagt catg 414

<210> 168  
 <211> 487  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(487)

<223> n = A,T,C or G

<400> 168

ttggannccn	tttgagnacn	ntanaatata	agctacttgt	tcttttttgc	ggatcccatc	60
gccttactct	tatttgctta	gcttggggtt	tcacaaaagc	aggcacattt	gcaagaagtc	120
atctacttat	tgaacaactc	tcaggaaaag	acataaatgt	cattttgttt	tcaccttcta	180
tgaatcatag	ttggtatctt	caacagagac	agcaagtgc	aaatgtctgg	aaaaatctct	240
gagttagaaa	agacttacag	aaaataagca	aatttaggtt	aaaaatgcc	catctctctc	300
tttttctgaa	acccagacat	acacacacag	agtcaccttg	tttgcttgca	attttaatct	360
ataaaaggta	ctcataggta	atttaaattc	tagtgaatca	tccctttgga	aactaattga	420
aagntttttt	attttgaaat	atcaaggcat	ttttctttaa	aattctatan	gaagtanggg	480
cttcagg						487

<210> 169

<211> 452

<212> DNA

<213> Homo sapiens

<400> 169

actatagaat	acaagctctt	gttctttttg	caggatccca	tcgattcgtc	ataatgtaag	60
agataattta	ggccaaatat	tgacttgagg	tattaaacag	attttgtaaa	actgaaaaac	120
aaatggaatc	aagtgagtat	attttgagata	ctttgaaaac	aaaaatacat	agtcataattt	180
gggcttttgt	aactagttac	agaatcaaga	aagcttgaag	aagtttgaag	gttacctagg	240
ctaatacatag	ttaaaatata	atggaaatag	aaacataaga	agttacattg	ataattctct	300
aagggtttgt	gtaatgggaa	aaaaacccaa	taatttttagt	gactatcata	ttccttttac	360
tacatctttg	gggtgtatagt	ttaacttcga	acactcactg	atttcaggcc	attcagtcctc	420
tttggaacaa	caacataaaa	atcttttttt	tt			452

<210> 170

<211> 154

<212> DNA

<213> Homo sapiens

<400> 170

actgattgga	actgtattat	attaaaatac	taaaaatcct	aagtgtcttt	cgtctttgct	60
gatgggaaaag	ggaaaaatgc	tacctcgtag	tggcttctga	tgggaacagg	acgcgggttc	120
tggtgctgcc	ttcctgtgtc	tttttttttt	tttt			154

<210> 171

<211> 413

<212> DNA

<213> Homo sapiens

<400> 171

gttctggagg	ctgggaagtc	caagatcaag	gggctgctct	ggcaagggcc	ttcttgctgc	60
atcatcccat	ggtggagagt	ggaatggcaa	gacagatcaa	gaggggacct	aactggcctt	120
ttataaggaa	cccagttcca	cagtaatggc	attaacccat	ccatgagagc	agagcccat	180
gatctaaaca	ccttttatta	ggccctgctt	atactgttgc	actggggatc	aagttgcagc	240
acttggaact	cgggcaacac	attcaaacca	tagcaggcac	cttaataaag	gtggaaaagg	300
gatgtggcag	ctacagtggg	agggaaaagg	tggctccctt	agtgtgcttg	ggaggagggt	360
aagagatgog	tttgcagttc	tcatggccgc	agactgaagg	ggcctgggta	cct	413

<210> 172

<211> 460

<212> DNA

<213> Homo sapiens

<400> 172  
tctagaatac aagctacttg ttcttttttgc aggatcccat cgattcgcac atttcaagtg 60  
cttaacagcc tcatgtggct agtgactgct gtattggacg gtacagatat ggaacatttt 120  
catcatcgaa gaaagtccta ttggacaaca cttctataaa aagtttgaga gcaggaattc 180  
tcattttccat tcgtctgtag cttctatccc caaaggcaaa gaaactaaaa gagaaatgac 240  
tcattgaaga ttggcctctt tcctttctct aagacaaacc taagtaaaag cctgagcttt 300  
gagtcctatg ctcagcacac gggaaggaga tgttaataat taaaataaag ttgatatcct 360  
gtcttttaggg agttcccttg atctcttgaa agagacacag ccccatTTac attatttcgt 420  
ggatttcacc agcataagta taagtTTTTt ctgtaagtcc 460

<210> 173  
<211> 373  
<212> DNA  
<213> Homo sapiens

<400> 173  
atcccacaga cagcagccag ccacgtggac tcctccaacg ctcttcccag ggatgagcag 60  
ccgcccgtcg acatgcttcg gctgacccc cgggacacc tctatcgagt gcctctgac 120  
cccaagtgc atctccgcc cgtcctgctt gactgtccct acaaaccag ctatctgggtg 180  
gatgggcttc ctctgcagcg ctaccagggg ctccggtttg ttcattctgtc ttttgtttac 240  
cccaatgact ataccgcct gagccacatg gagaccaca ataaatgttt ctaccaggaa 300  
aacgcctact accaagaccg gttcagcttt caggagtaca tcaggattga ccagcctgag 360  
aagcagggggc tgg 373

<210> 174  
<211> 390  
<212> DNA  
<213> Homo sapiens

<400> 174  
cttttttttt gtttgTTTTt cttaatagat gcgctctgac tttgttgccc aggctgatct 60  
tgaactcctg ggctcaagt atccttccc ccttggcctc ccaaagtgt agggtttact 120  
gcgtgagcca ctgtgcctgg ccaggttggt tcaatcttta tctcattgct tagagagaac 180  
ctcctctgga aatcttcctc tctcggtagc ttattcctct ctagtattgg gtcctgagaa 240  
ctccagagtc ttagectccc tggacttctt tctagcctta tctccttgac ttacaaaggc 300  
tcctgaatcc catgtgattt ccccttctt tgcaggatag tttggaaact tcagtcagtt 360  
aaactggttt gatcaaaaag cttacataat 390

<210> 175  
<211> 389  
<212> DNA  
<213> Homo sapiens

<400> 175  
gtttcagaag ggcataaaaa tcaacatgga caagaatcgg aggcgaaatg cttcccgggtg 60  
ccgggagtgga gcgatgagct ggcttctgtt cctggcccac agagtcgcct tggccgcctt 120  
gcctgcccgc cgcggctctc gcgggttcgg gatgttctat gccgtgagga ggggccgcaa 180  
gaccgggggtc tttctgacct ggaatgagtg cagagcacag gtggaccggt ttctgctgc 240  
cagacttcgt cgtcgtctac actgatggct gctgctccag taatgggcgt agaaggccgc 300  
gagcaggaat cggcgtttac tgggggccgg gccatccttt aaatgtaggc attagacttc 360  
ctgggcggca gacaaaccaa agagcggaa 389

<210> 176  
<211> 411  
<212> DNA  
<213> Homo sapiens

```

<220>
<221> misc_feature
<222> (1)...(411)
<223> n = A,T,C or G

<400> 176
gaccacctga ttgcctcctc gtgctagacc ttgaaccaga ggcactccgc taagctttct      60
gaccacaga aactatgaga tcataaatgg attgttttaa gccactaaag atttgaagta      120
atttgtcatg cagcataggt aactaataca gtagtgtagt tatttgccaa agtaataatt      180
tttaaaggaa tacagcaaaa tataagactc catcataatc tggcatgcaa taaaaaatta      240
ctagacaatg aagaagcagg aaaatgtcac ctataaccag gggaaaaaatc agtcaataga      300
tgcagacctg gaacggatag aaatgatagg attagcatgc ngcaatgnaa atatgatctc      360
tgcttaaaagt atgtgaaggg aagcatgccc agatgaagaa agaaatgaaa a              411

```

```

<210> 177
<211> 449
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(449)
<223> n = A,T,C or G

<400> 177
tagttttgna ctatagaata caagctactt gttctttttg caggatccca tcgattcggc      60
gcttgacgac tgcaggagcc gcaaacgtca gctgttctgg aaaccgagag ggtcccagag      120
agaggagata cgggcgcatt tgagagcaag ggcctacttg gccgggactg aagcttgcca      180
gttagactcc agttcggccg gcagttccat cccgcttcag gaacaggaat ccaagggcc      240
acgctctgtc tgccaagggc cattcctgcc cggagcacc ccttttccct tgcgcttgct      300
ctccggtacc tgttcgcac ctgagctcaa gggcaggagg aggccgggcc tctggcagtc      360
cacgaaggaa gccgtctgcc ttcggttatg attttaggaa caagtccaac gaggggtgttc      420
aagcaagtta atggttgtgc taactcttg              449

```

```

<210> 178
<211> 365
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(365)
<223> n = A,T,C or G

<400> 178
gagagccggg cgcccgagga cggttccgc aaggccaga agccctggct gaagaggctg      60
aaggagggtg aggcttcaag aaaagctacc acgcagcccg gaaggatgat aagaccgcc      120
atacgatgga tagccacgca aaggcaaacg gcgcggtctc ccaggagcag ctgctcaaac      180
tgcnagaacg ggtngtacgc tgtgccaaag aggcgcgcaa gacaaaagct tantntgatc      240
antccctggc aanctgnatc gctcactcca cgctacatgg nggacatgtn catgcctttg      300
anaccngcca ngccntnnnn cncagnggn ttnttttctt tanggtntgn tnntcanctt      360
nttct              365

```

```

<210> 179
<211> 391
<212> DNA

```

<213> Homo sapiens

<400> 179

agaaagctta	cagaaaactc	gccctgaaat	ttcacccctga	caagaactgt	gctcctggag	60
caacagatgc	tttcaaagca	ataggaaatg	catttgacgt	cctgagcaat	cctgataaga	120
gacttcgcta	tgatgaatac	ggagatgaac	aggtgacttt	caactgcccct	cgagccagac	180
cttataatta	ttacagggat	tttgaagctg	acatcactcc	agaagagctg	ttcaacgtct	240
tctttggagg	acattttcct	acaggaaata	ttcatatgtt	ttcaaatgtg	acagatgaca	300
cttactatta	ccgtcgacgg	caccgacatg	agaggacaca	gactcagaag	gaggaggaag	360
aagagaaacc	tcagactaca	tattctgcat	t			391

<210> 180

<211> 401

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(401)

<223> n = A,T,C or G

<400> 180

gaggattccg	ctctttctcc	atcagtttca	tagccctgga	attgtagaaa	agctctgggt	60
tcaagaccat	tgatatccat	ttctgtcagg	gtgtcagaca	aagagaaaaat	tgaccaactt	120
caggaagaac	ttctgcacac	tcagagcaaa	atttgggaag	tgtaatgata	gaaccttatt	180
attatcgata	gatgcaaaag	ctaattgaga	aataaggaat	aaagacagaa	ctagataagt	240
atggagttaa	ctcattttata	tgtaaaaaacc	tatttttgagt	gaatcttatg	cccaaaagg	300
agaaagtggc	ttgccttata	taaacttatg	cttgcatttt	tacattgata	agctaatacag	360
gtaaagaaat	tcgagttggg	ctaccacatc	gtctagnngc	t		401

<210> 181

<211> 405

<212> DNA

<213> Homo sapiens

<400> 181

tgcatatgtg	atgagatgaa	gtgaggtgag	gtgaatgatt	gtaggcgttg	tgacataatg	60
tttggtact	gttgactctc	caacaggatg	tcaggaggag	gatcatttga	ttcaggtgat	120
ctagatcatc	aagtcgtgac	agtgttgata	gctaaatgtc	aggagcaaag	agtgtccatg	180
actaacaggc	agcatggata	tgctgggcaa	agggatgatt	cacatcttgg	gcagcacacc	240
atgagatttc	ttcatgctac	tcataatgac	atgcaattta	aaacttataa	agtgtttatt	300
tctggcattt	ttaatacttt	tggaccatgg	ttgactgagg	gtaactgaaa	ccaaggaaag	360
caaaaccaca	gataaggggt	gactactgtg	tgcccatttt	tatta		405

<210> 182

<211> 408

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(408)

<223> n = A,T,C or G

<400> 182

agaaaaaagg	gtggatggct	gaatacaagc	tagtctcact	tcactagaaa	tgtccacatc	60
------------	------------	------------	------------	------------	------------	----

ctaata	gtga	acctgatttt	tataagcatt	taagtgcctct	ttcatgttcc	ctttctacca	120
cattcagaaa	ttgctacttt	tccttttaaaa	acattttaatt	tttggttatat	agatttttcaa		180
gatgtggaat	aaagaacttt	atgtgagaga	acagcaggat	gcataatgaat	tctttactag		240
tctcattgat	cagatggatg	aatacctcaa	ggtagtaaaa	gttgtacttt	ccctctaact		300
ccctcaaact	ctaattatag	tatgagaata	gtgcttagca	tttgggggta	ctatgaaact		360
gacgaatcag	aaattgatta	tctttaacat	aagaactatt	atnggatt			408

<210> 183  
 <211> 439  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(439)  
 <223> n = A,T,C or G

<400> 183							
ccaaagt	gct	gggattacag	gcatagagcca	ccgtgcccag	cctacacgta	tgacagataca	60
cacaaatata	cacacacact	gaaacatgca	tgatgggtgtg	atagggccta	aattattgct		120
gtgtggctat	tcctaattctt	gcccctttct	cctgggttct	aaggaacatc	ctcttctggg		180
ccagctccca	ggttctcctt	gttgacacaga	accaaactaa	ttcactaata	agagcagggg		240
aaaaaaaaaa	aaantaagcn	gggctngggg	gctcaccn	gtaanccnaa	aacttcggna		300
nactgancca	gnannatggt	ttgnncccag	gagttttaaa	ccanccngga	naacaaaggg		360
anannctcat	ttctaaaaaa	naaaaaaaaa	antttttttt	antnaccn	ggcgggggga		420
ccctgccctt	tattccacc						439

<210> 184  
 <211> 459  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(459)  
 <223> n = A,T,C or G

<400> 184							
tttganacc	tttgagnacc	atagaatata	agctacttgt	tctttttgca	ggatcccatc		60
gattcgaa	acaacaattg	cattcatttt	atgttttcagg	ttcaggggga	gggtgtgggag		120
gttttataat	ncntnccgt	tcntgnngcc	natncttgn	cccatanttn	ccttcttcnn		180
ccatttttnc	tatttngatt	ggaaccctga	tctacnggca	ctgnagcnta	atnaaatngt		240
atcccnttcn	ncgttccntt	ntnaaccntg	actttttann	tcantntntc	tnctgcccgt		300
ttttcntnnn	ntaaaccnnn	cntnntacct	tgntaatctt	ttaggataan	ctgnangatc		360
nncncatctt	nntaaangnc	nncccccttg	aacgatnnnt	natnctgtga	tcacacnatt		420
ccnntnngtc	cccccttnat	cggggnctgn	cagcttccg				459

<210> 185  
 <211> 419  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(419)  
 <223> n = A,T,C or G

<400> 185  
gctgggaagc agagggtaat aagtggcgcc ttaagacaac cctgtagcag cagcagtggc 60  
ggccaaagga ggctgctcag ggaacaagcg gctgtagtag tctgtggggc gactggagtg 120  
accgaagcca aggcagttta gtgcctctcg tgttcttatt ttttaacctc tgactatgca 180  
attctgaaac ctccccatt cgggggacca gacagcctga tagacacctt ccactctcct 240  
tcctcccgcc gtggtctcga gaacagaagg atctctcctt aacgcctttc accattaaga 300  
ggaaagcgat ggaggagctg agcgctgatg agattcgacg gaggcgcctt gcacgacttg 360  
ctggtggaca gacctctnag caaccacccc actnaccttt tccanaagg agaaccctc 419

<210> 186

<211> 397

<212> DNA

<213> Homo sapiens

<400> 186  
aatctctatg gagtggcctt cctcctaccc tagtgatggc agttcctgcc acagttattt 60  
attttacctg ctatgatcaa ttaagtgtct ttctgagatc taagttagga gaaaatgaaa 120  
cctgcatacc aattgttgcg ggaattgtag ccagatttgg tgcagtaact gtgataagtc 180  
cactagaatt gattagaacc aagatgcagt ccaagaagtt ttcttacgtg gaactgcatc 240  
gatttgtcag caagaaagta tctgaagatg gttggatttc ctttggagg ggctgggctc 300  
ctactgttct tagagatgta cctttctcag caatgtactg gtataactat gaaattttta 360  
agaagtggta tgtgagaaat ctgggttata tgagcca 397

<210> 187

<211> 413

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(413)

<223> n = A,T,C or G

<400> 187  
ctcgggcgct gacggcgcg gtggcgctgc ggtggcgggc cggtcggaca agggcagtc 60  
cggggaggac ggtttcgtcc cgtcggcgct ggggaccgc gagcattggg atgctgtcta 120  
tgagagagaa ctgcaaaact tccgagaata tggagatata ggtgaaatct ggtttgaga 180  
agagagtatg aatcgactaa taagggtgat gcagaaacac aagattccac tggatgcttc 240  
agtgcctgat attggaactg gaaatggtgt tttcctggnt gaacttgcaa aatttggttt 300  
ctctaattat actggaattg attactctcc ttctgcaatt caactttctg gaagtattat 360  
agaaaaagaa aggttatcta acattaaagt taaagggnaga aaactttttg aat 413

<210> 188

<211> 394

<212> DNA

<213> Homo sapiens

<400> 188  
aaattttcta tataataata ggctcatttt aacttttaaat ataaacactc attattttcaa 60  
aagtaaaatt aatggttctt ttaagtcata agaggaataa tggtataatt cacttactga 120  
agtgtttgtc tcagactttg taatgaatac tttaaaccaa aaattaagtt ctacatacta 180  
tctatggata aaaagaagtg gtttgtaaat ttatctttat ttttactaaa ttaaaaaatt 240  
taaagccaaa atgttaggtc aggattttaa acaagcattg ggtggacagg gtgttgggag 300  
taatggttag attgaaactc ggtgtcagct ggttactgat tgcaccccca ctttaggatt 360  
ttggtaaaat taaagcaatt aatgcaaata aagg 394

<210> 189  
 <211> 398  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(398)  
 <223> n = A,T,C or G

```
<400> 189
gtttaattaa aacaaagcat cgcaaggcc cgcggcgggt gttgacgca tgtgatttct      60
gccattttgc gtcattgccc caatgtnann atnatcctn tnntananna ccattggaan      120
nnnttaangg tatattanta nagtncaaaa nctcttnatt ancntacaga nanggataat      180
ttaaantntcc aangttggna nattcatntn tattangcna tttntntnca gatanngnct      240
tngacncaag tttnncaact gnaatnttaa agtatncatg gttngtacct attnnaagtc      300
ngctttgaga aaangagggn tncatatnggg ggtattgncc atctnaccgt nananctnga      360
aaaaaatgga ctgaatgnnt anaaacngga ttaattta      398
```

<210> 190  
 <211> 409  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(409)  
 <223> n = A,T,C or G

```
<400> 190
attttgatga atggtttgaa taagttttgt attctgctgt tcttatgtgg actgttctct      60
aagtgtcaat tgggtcacgc aggttgatgg tgaagttcac atctaactatg tcctttctga      120
ttatccactt gttctatcaa atattgagag aatattggaa atctccaacc attatactgg      180
atttgtcttg atagtttttc aatcctatga acattcttaa gctttgttct gagatgcagc      240
taagttcctt ggaaacagtt ttgtgccctt aagtcttgct tttatgattt gtttggtggg      300
tgtcgagtag tgctcagtg agtgctaacc attccccaca actgaggaat gaacgcctgg      360
gtattttaac ctatgcctta tgagttatga ntttttctgt ctgcttggt      409
```

<210> 191  
 <211> 406  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(406)  
 <223> n = A,T,C or G

```
<400> 191
gccgccgcca tgggggcctg cctgggagcc tgctccctgc tcagctgcgc gtccctgctc      60
tgccggtctg cccctgcat cctgtgcagc tgctgccccg ccagccgcaa ctccaccgtg      120
agccgcctca tcttcacggt ctctctcttc ctgggggtgc tgggtgccat cattatgctg      180
agcccgggcg tggagagtc gctctacaag ctgccctggg tgtgtgagga gggggccggg      240
atccccaccg tcctgcaggg ccacatcgac tgtggctccc tgcttggtta ccgcgctgtc      300
taccgcatgt gcttcgccac ggcggccttc ttcttctttt tcaccctgct catgctctgc      360
gtgagcaagc agccgggacc cccggcttgc catccanaat gggttt      406
```



<210> 192  
 <211> 396  
 <212> DNA  
 <213> Homo sapiens

<400> 192  
 ctcaccggtg gctacaacct ggccagcgtg agcgtgtggg acctggcggc gccctccctg 60  
 catgtgaagg agcagttgcc ctgtgcagggt ctcaactgcc aggccctgga tgccaacctg 120  
 gatgccaaacc tggccttcgc cagcttcacc agtgggtgtg tccaggatctg ggacctgcgg 180  
 gatcagagtg tggtcaggga cctcaagggt tatcctgatg gagtcaagag tatcgtgggtc 240  
 aagggctaca acatctggac tgggggtccg gatgcctgtc tgcgggtgctg ggaccagagg 300  
 accatcatga aacctctgga gtaccaattc aagtctcaga taatgagcct gtccacagc 360  
 cccagaggag actgggtgct gctggcatgg caatgc 396

<210> 193  
 <211> 385  
 <212> DNA  
 <213> Homo sapiens

<400> 193  
 ggcagttgac cgaaccggaa agtggcagga gttggagtac ccgagccccg cttaccctgc 60  
 ctttgcattgt gggtcaggat attgatctcc aaggacatcg tcaagtggct ggcaagcaac 120  
 tcggggagggt taaagaccta tcagggtgaa gatgtaagca tgggcatctg gatggctgcc 180  
 ataggaccta aaagatacca ggacagtctg tggctgtgtg agaagacctg tgagacagga 240  
 atgctgtctt ctctcagta ttctccgtgg gaactgacgg aactgtggaa actgaaggaa 300  
 cgaaggtctg acacaggaac tttgagaaga cgtgacagca atcccttcac cttttgaatt 360  
 gtcattggagc ctatcaaaag acaag 385

<210> 194  
 <211> 402  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(402)  
 <223> n = A,T,C or G

<400> 194  
 agtttcttgt gttactatct tgtcattgaa gagctcttta tatatttttg aatgtaaatt 60  
 ctcgatgtgt taaacatttt tctcacgac tggtctgctt tgatttaaaa atttttttta 120  
 tttcaataat tttgagttat aggtgggttt ggttacatta atgagttctt ttgtgggtgat 180  
 ttctgagttt ttaggtgtac ctgagcagtg tacactgtgc ccaatatgta gacttatccc 240  
 tcattctttt tttttttttt naaatnggcc tttgcccccc agncnggaga atnnngggan 300  
 aatntggnnn acgncnctn cnttnggggg ntcagganag cttctnag aacctngcc 360  
 ctcttgaggg ggnantttca nnaggnggcc ccctnntggg tt 402

<210> 195  
 <211> 362  
 <212> DNA  
 <213> Homo sapiens

<400> 195  
 aggatggctt gagcctggga ggtcaagact atagtgagct gtaatcatgc tactgcactc 60  
 cagcatgggt gacagagcaa gatgctgtct aaaaaagaat acttattgta aagtttgggt 120  
 acaggaataa tgaagtcatt gatagtttat gaacaggcta tgaagttgat gcccaaaaga 180

aataaacagt	ttgtaaatta	ataacttatt	ttgagttgtg	acaagacaat	gttgaaagtg	240
atgcatgaag	cggcaggcag	accatccaca	tcagttttac	agaaaaaaag	ttaatcttgt	300
tcgtgctgca	gtgaagagaa	cagcaaacag	gagaaacaat	agtcaggaat	tcaataatag	360
cc						362

<210> 196  
 <211> 404  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(404)  
 <223> n = A,T,C or G

<400> 196						
acacacacac	acaacacaca	cacacacaca	catgcacata	cagactcggg	ccccaaaaaa	60
tgtgtccctt	tagcagggtt	agccttccac	ccaagatgta	agagaggcct	ggtcagggga	120
gaatttgtct	tgtgttggtg	ttcggttcatt	ttcagaaaaag	tagcaggcaa	gtccttggtt	180
aatgtaagggt	tgtttttggt	tgatggcatg	tgaattgtcc	cttcagcctt	gctgagcatc	240
actcatcaca	acaaacaaga	gctatccctaa	gtagttttgct	aatacagcag	tttaagggtc	300
aaaagcatta	aaggacaata	acatctaata	cagttataacc	actgnactgg	catgacttac	360
tttcacacat	attatctggg	ngngngggga	atcagtaatc	catt		404

<210> 197  
 <211> 396  
 <212> DNA  
 <213> Homo sapiens

<400> 197						
cggaggggttc	tgccgcacgg	catgggccgg	ggcctcttga	cccggaggcc	aggcacgcgc	60
agaggaggct	tttctctgga	ctgggatgga	aagggtgtctg	agattaagaa	gaagatcaag	120
tcgatcctgc	ctggaaggtc	ctgtgatcta	ctgcaagaca	ccagccacct	gcctcccgag	180
cactcggatg	tggtgatcgt	gggaggtggg	gtgcttggtc	tgtctgtggc	ctattggctg	240
aagaactgga	gagcagacga	ggtgctattc	gagtgcctagt	ggtggaacgg	gaccacacgt	300
attcacaggc	ctccactggg	ctctcagtag	gtgggatttg	tcagcagttc	tcattgcctg	360
agaacatcca	gctctccctc	ttttaaccag	cttttt			396

<210> 198  
 <211> 407  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(407)  
 <223> n = A,T,C or G

<400> 198						
atgaatttga	agatgaagaa	atgctggatg	aagaaggtag	aaccagggtta	aaattaaagg	60
tagaaaatac	tataagatgg	aggatacgcc	gagatgaaga	aggaaatgaa	attaaagaaa	120
gcaatgctcg	gatagtcaag	tggtcagatg	gaagcatgtc	cctgcattta	ggcaatgaag	180
tgtttgatgt	gtacaaagcc	ccactgcagg	gcgaccacaa	tcactctttt	ataagacaag	240
gtactggtct	acagggacaa	gcagtcttta	aaacgaaact	caccttcaga	cctcactcta	300
cggacagtgc	cacacataga	aagatgactc	tgctacttgc	agataggtgt	tcaaagacac	360
agaagattan	gaatcttgcc	aatggctggt	cgtgatcctg	aatgccca		407

<210> 199  
 <211> 371  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(371)  
 <223> n = A,T,C or G

<400> 199  
 gaagacgaga cgcaccccaa catcgacacg gccagtctct tccgctggcg gcatcaggcc 60  
 cgggtggaac gcatggagca gacctctatg aaaatgatta nccengnntg ttangtgtgn 120  
 ttttaanaanc accatgntgg ntatgactat tttatctatt cagantcgcn nattgntntt 180  
 nncaagaaan gctnnatcct gttcttataa tgacatttgn agtggtgana taggnntttt 240  
 ntnntcatan aacagnngng atcanttttc tcttgantna ctcnnttnat ttctttttca 300  
 cntngngana tttcatgant nncannntc tnanaannaa ntctttgnga nnngcnntn 360  
 attnatngtg c 371

<210> 200  
 <211> 447  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(447)  
 <223> n = A,T,C or G

<400> 200  
 gaaaccnnaa actctanaat acaagctact tgttcttttt gcaggatccc atcgattcga 60  
 aagaaagtag gtaaaaaaag aaaagggtag ataatctttc gtatgcaaac ttttccctta 120  
 tattttgtct ttcttttcct tttgacttta gtagcatcct ccacacattt gtgtgcctga 180  
 ttgaaanga agccgganac cccaccnngt ttnttntttt nngaattaaa acngganctn 240  
 acgcncang gccacttgc nnanngganc cnnccccccc gcnctggagt tccnccattt 300  
 tacnccccaa canggnnncc ngaccctgnn ncnctnanga ngatcgncct ntcaaattcc 360  
 acnaaaaaan cnggttttnt tttccaaaag cccccanacg ngnggggnnt caaaggtnng 420  
 aactttcctn ttgnngaanc nggtccc 447

<210> 201  
 <211> 406  
 <212> DNA  
 <213> Homo sapiens

<400> 201  
 ctccccagc actgaggagc tcgcctgctg ccctcttgcg cgcgggaagc agcaccaagt 60  
 tcacggccaa cgccttgga ctaggtcca gaatggctac aacagtcctt gatggttgcc 120  
 gcaatggcct gaaatccaag tactacagac tttgtgataa ggctgaagct tggggcatcg 180  
 tctagaaaac ggtggccaca gccggggttg tgacctcggg gcccttcatt ctcactctcc 240  
 cgatcctcgt ctgcaagggt caggactcca acaggcgaaa aatgctgcct actcagtttc 300  
 tcttctcctt ggggtgtgtg ggcattcttg gcctcacctt cgccttcatt atcggaactgg 360  
 acgggagcac agggcccaca cgcttcttct ctttgggatc tctttt 406

<210> 202  
 <211> 400  
 <212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(400)

<223> n = A,T,C or G

<400> 202

gaaggagg	gtggctgc	gtggctcc	gaagccgt	gggctggg	tgctggcc	60
ggggcgga	cactcgcg	gggggta	cggggtct	gttctgg	cgcgagct	120
tccccgt	ctaaagt	gtgttg	gttcaagg	ttgacttg	ctctactt	180
tggttaag	gaattcat	ctcttg	gtgttg	gtttcag	cgcatgg	240
tggtcatc	gttgca	aggtct	ctccca	attgtg	cgccactt	300
tctctgga	taccatt	ctgatg	gggggg	gtgcat	tanggggc	360
gctttcat	gtttttg	ccnctg	atgaaaa	tgcaagg	ctt	400

<210> 203

<211> 404

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(404)

<223> n = A,T,C or G

<400> 203

gtgcatttt	agtagaga	tggtttc	accatgt	ggatgg	ctctga	60
cctcgtgat	caccacct	cgcctccc	aaatgt	gtgctgg	gtacagg	120
acctgggc	ctttattt	ctttta	atttt	gtgtgg	actttag	180
gatttgacc	aaaggga	catgaaa	aaccttc	cttaaaa	tatttct	240
tgctgttt	gtctat	ctgtat	atcatt	agtagt	ccccctt	300
tccttctg	tgttttt	ctgtat	cccatat	ccatgt	gtgctga	360
cactcctcn	ntaannan	ncanacac	ccanct	aanntgg	aaaa	404

<210> 204

<211> 413

<212> DNA

<213> Homo sapiens

<400> 204

ccaaggta	tcttaaat	gtactga	tgtctcat	gtctctaa	aaatgt	60
caaactgt	gtctgact	accattg	gttggtac	atgtctg	gggtgac	120
aggccatg	gtttcat	atttggt	cttaaaa	caaatct	cttcaaa	180
actctttt	ctcaatag	aactcat	ttatcatt	taagtt	aaagtt	240
ttaaacac	gagtttt	gacagg	gagctga	aaacaat	agtagta	300
tatctacg	tacccaga	catgata	gataag	gataag	catgag	360
atgcagtga	aaaaatg	ctttgtg	aaattgt	gtgatg	ctattg	413

<210> 205

<211> 483

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1) ... (483)  
 <223> n = A,T,C or G

<400> 205  
 ttgttggcct cnanaaaciaa gctacttggt ctttttgcag gatcccatgc agaggactat 60  
 ttctctttct tcctctcatt acattcataa acaatagcca gagatgcttt gactatctca 120  
 gttctgttct gattatctgt tgctgtatgt tccacagtga gcaggctctat gcaaacctaa 180  
 cctcaaaggc tgagggagtt gagaggctga agaaagagac tgacaaatgc agtttctctg 240  
 agaggaacgt ttaagagaaa tttaggaaca gaagccgtgt cttgggatgg cctctagaca 300  
 gtggatcccc atacctgccc tccagagagt attccttatt tagcaagctt tttttggtaa 360  
 aatgtgcaac tggatcatgtc ttcaaccctc ttgtgaaact caccactggg gaagttaagt 420  
 taagtgtttt tatgagggat tatctatgct acaggcattg cttctttatg aggggttatt 480  
 tat 483

<210> 206  
 <211> 416  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1) ... (416)  
 <223> n = A,T,C or G

<400> 206  
 tctttatcca ttttgaatta atttttgtat gtgggtgtaag taagggtccg acttcattct 60  
 ttttcacgtg gatattggat ttcccagtag catttggtga aaagactgtc ctttcctctc 120  
 tgtatagtag tggccccctt gtcaaacc accattgactag aaatgcatgg gtttattatt 180  
 gggctatcta tttttgttt cattgggtta tatgtctttt tatgctggca ccattgttgt 240  
 cttgattact atttgtattt aagtatgttt tgaaatcagg acatgtaagg cctccaactt 300  
 tgntgntctt tttcaagttt gttttggctc tatggggcct ttgagattcc atatgaattt 360  
 aaggataggt tttcctgttt ctgcaaaaat gccattggga ctttgacagg gatttg 416

<210> 207  
 <211> 416  
 <212> DNA  
 <213> Homo sapiens

<400> 207  
 gtggggcgta gggggcgacat tgttgccgtt ttctttcccc cccagtcctc ggggatggag 60  
 atgtcgggac tcagcttttc agagatggag ggctgccgta acctacttgg cctactggac 120  
 aacgacgaga tcatggccct atgacgacacc gtcaccaacc gcctgggtga gcctcaggac 180  
 cgccaagatg ctgttcatgc aatatttagca tacagtcaaa gtgcagaaga acttctgagg 240  
 cgtagaaaag tccaccgaga agttatattt aagtacttgg caacacaggg gattgttata 300  
 cctccagcta ctgaaaaaca caatcttatt cagcatgcaa aagattactg gcaaaagcaa 360  
 ccacaactga aattgaagga acgccagacc agttccaaga cagaggacat tcacct 416

<210> 208  
 <211> 397  
 <212> DNA  
 <213> Homo sapiens

<400> 208  
 gttaagatga acagtctgtg ctaacagtaa accagtatca ttaaataaaa caaaagggttc 60  
 ttgtaattgt aggcataaaa actgctatta catgcattta gaaaccaaga tacaagtaaa 120  
 aatactagta atttgtcatt taagtagctg gaatctattg tatattttca aggccttaaa 180

agatttcctc	ctgactctgt	agctgccttt	ggtgataggg	tttcctttat	tttagtgttt	240
tatttttaaaa	tgtaaatagg	attccaagta	tggatataga	gtttcctttc	ttttagtatt	300
taatttttaaa	atgtaaatag	gatttcaagt	atggatcaga	agcctgttct	tttatctaaa	360
aaaatttttt	aaataatctg	aaataatgat	taagagt			397

<210> 209  
 <211> 406  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(406)  
 <223> n = A,T,C or G

<400> 209						
gtggggcgtg	ggggcgacat	tgttgccgtc	gtttttcccc	cccagtccc	ggggatggag	60
atgtcgggac	tcagcttttc	agagatggag	ggctgccgta	acctacttgg	cctactggac	120
aacgacgaga	tcatggccct	atgcgacacc	gtcaccaacc	gcctggtgca	gcctcaggac	180
cgccaagatg	ctgttcatgc	aatattagca	tacagtcaaa	gtgcagaaga	acttctgagg	240
cgtagaaaag	tccaccgaga	agttatat	aagtacttgg	caacacaggg	gattgttata	300
cctccagcta	ctgaaaaaca	caatcttatt	cagcatgcaa	aagattactg	gcaaaagcaa	360
ccacnactga	aattgaagga	aacgccagag	ccagttacaa	agacag		406

<210> 210  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<400> 210						
cacttgacaca	ctcaaagcca	cattggactc	atTTTTtctg	ctacctttat	aaaccttcaa	60
actgttcaag	agtcaatggg	atgtatcatc	ttccgttata	aatcatcatg	ttttgttttg	120
tttggttttg	tttggttttg	tttggttttt	gacaaagtct	cgctctgtcg	cgcaggctgg	180
agtgcagtgg	cactgtcttg	gtcactgca	acctccccct	cctgggttca	agcgattctt	240
ctgcctcagc	ctcttgagtg	gctgggatta	caggcgtgtg	ctactacgcc	tggctaattg	300
tatttttagt	agagatggga	tttccactgt	gttaccagc	ctgggtctgga	acttctgacc	360
tcaaatgatc	cacctgcttt	ggactcccaa	agtgctagta	t		401

<210> 211  
 <211> 412  
 <212> DNA  
 <213> Homo sapiens

<400> 211						
gggtgaccaa	gtagggcctg	tgacaccagg	gtggcgagc	tttctgtgtg	atgcagatgt	60
gtcctggttt	cggcagcgta	gccagctgct	gcttgaggcc	atggctcgtc	cccggagttg	120
ggggtaccgg	ttgcagagcc	agggacatga	tgcaggcgaa	gcttgggatc	tggccaagtt	180
ggactttgat	cctttgggca	gatgtcccat	tgtcccttgg	agcctgtcat	gcctgttggg	240
gatcaggcag	cctcctgatg	ccagaacacc	tcaggcagag	ccctactcag	ctgtacctgt	300
ctgcctggac	tgtccctgt	ccccgcattc	cccctgggac	cagctggagg	gccacatgca	360
cacacagcct	aactgcccc	gggagctctg	ctgccttgct	ggcctgcctt	cc	412

<210> 212  
 <211> 418  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(418)  
 <223> n = A,T,C or G

<400> 212  
 gtgagagagg atgtgtgctg ggccttgagg gaagggggcc gagaccgggc cttacttctg 60  
 taacgatact gtgaggcata ggaaggccag cctgttggtg cggttttgaa ggtcgggtggg 120  
 ctagactggc tggccttcta ggggtgtgga gacttcccaa ctctgccctt gtgctttcct 180  
 ggaatcccca atatgcctgt agtcccagca ctttgggagg ctgaggcggg cggatcatga 240  
 agtcaggaga tcgagaccat cctggctaac gtggtgaaac cccgtctcta ctaagaatac 300  
 aaaaaaata ttaaccggc atggtggcag gcgcctgtag tcccagctat ttgggaggct 360  
 gaggtaggag aatggcgtga acctgggagg cggagcttgc agtgagctga nattgtgc 418

<210> 213  
 <211> 383  
 <212> DNA  
 <213> Homo sapiens

<400> 213  
 cccttgatgc tccaccaagc accagcacia tggatgatga aggttatccc aggcctcatt 60  
 cacacttgct ttcctggggt tacagtcagc tgatccttca tctaattaaa cttcctgcag 120  
 attttataac caaagagaaa atgacagaca tctgcaggtc ttgtgggttc tggcctggat 180  
 atctaattct ctgtttggag ctggagagaa gaagagaggc cttcaccaat attgtgtatc 240  
 tgaatgatat gagcctgatg gaaggggaca atggttggat cccagagacc gtggaggaat 300  
 ggaagcttct ccttcattct atacagagca agagcacgag gccagcccc caggagtcac 360  
 taaatgggag cctcagtgat ggg 383

<210> 214  
 <211> 370  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(370)  
 <223> n = A,T,C or G

<400> 214  
 ctctcttgag tgcgtctccc tggccagtta tggcctcgct ctgctgcac cccagggtct 60  
 cgaggtcgca ctgggtgctc acgtggtggc cgatgtgggg canagcgctg ancanccaca 120  
 ggctnatatg ncagnaccat ctengctacc tantnacntn cngggncnnc naatcnntt 180  
 atctggggga tgggcannct ctgnaacgct nncagngact ncnggtgttn ancnaacttt 240  
 ntttacccca atgacnatac ccgctgntca catgganacc cnaatanaag nttntacnng 300  
 gnaaaccna atncnanaac tnttanantt gnggagtact ttanngantg accaanacng 360  
 anaacagggg 370

<210> 215  
 <211> 440  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(440)  
 <223> n = A,T,C or G

<400> 215  
gaaactcntn nacncntana caagctactt gttctttttt caggatccca tcgattcgtg 60  
gaaagttgat gagcatcttt tcctgtgctt attaaccatc cgtttatctt ctttggtgaa 120  
acgtctagtc aaaaattctc tctcagtcac atgatttgca actataaatt tttcccagtc 180  
tctggcttgc cttctcattt tcttaatagt gtcccttgga atataaacat ttttaattntg 240  
ntaaanccac tttaccaatt ncnontnta tggncaan ntaactgttn nggnntnna 300  
ccntttttt tnttngcct acannncnn cattgncnn nngnttnnat nntnnnanan 360  
nccccccnc atatnnntt ttttnttatt naggctttat ttttttnaaa aaaannnngt 420  
ntatttttnc cncctgggtt 440

<210> 216  
<211> 414  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(414)  
<223> n = A,T,C or G

<400> 216  
gttgccctggc agcagacggg caagcctgga cttaggcggc gcgcaggacg gtccgacttc 60  
gtgcgagggc ctccctgagg tccgggtcct tgcggccact gcggccactg aagcggcggc 120  
ggcggtggc ccatgaggaa gaagtccagc ccatgctatt tcntgttccn tagtnagnna 180  
aangctnctc cgtacgacgc nggattcgcg natcnatant ttctaanaga agaaagggag 240  
gccacatatn gctnnacaan gcactataca aaccctgang attaanana ncanctgtat 300  
gctgagaatn ataccgccac gaaaaaatag gacnataana nnntgggttat gttncgtggtg 360  
ncaacnccaa atangagaaa anatcnattt actcagatta agtgacgntg atga 414

<210> 217  
<211> 420  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(420)  
<223> n = A,T,C or G

<400> 217  
gacggacggt agccactctg caccagactc tcatcccccac ggccctcaggt ggcccccagg 60  
aaggctctgg caatcaaact ttcattacca gttcgggtat tacttgact gactttgaag 120  
gcctaaacgc cttgattcag gaggggacag cagaagtgc agtggtgagc gatggaggcc 180  
agaacatcgc agtgccacc acagcgccac cggctcttctc ctctcttcc cagcaagaac 240  
taccgaagca gacactactc atcattcaag gggcagccca tccagctttg ctctgtcccg 300  
ccgactccat tccagattag tgcttaaaaa aacaaaagga gtgggggaaa ggaattgaga 360  
aaaagaaatc ttaaagtaga attctctaaa agggttgctc ttaatgggtt ctttgnnttg 420

<210> 218  
<211> 192  
<212> DNA  
<213> Homo sapiens

<400> 218  
gtgactgtat ggtagagact gtgatctggg aactttttgc tgtacaaatc tgtttaaaaa 60  
aaaaaaagta actcattgaa ttaacttgca ggggggggtt tgattctttt ttaaactggc 120



ttcagcattg ggcagtttaa aaataagtaa gtaacttaca taaatcttca attgtatgaa 180  
 aaaaaaaaaa aa 192

<210> 219  
 <211> 400  
 <212> DNA  
 <213> Homo sapiens

<400> 219  
 gtgggttttca acctctcagt ttgtggtaat ttgttaacag ccccaatagg aaacaactac 60  
 tcatgcatcc aggggacacc tcatgaacca cccgatctca ctaagtcttg ccttcctgtg 120  
 accacattgc tatttcaggt ccctgtcagc acttataaat gtggctgcct cttgctaggg 180  
 tggcctttat agcacatctg aaacagcact ccttggtctt ttgattgtta tgtttttaga 240  
 gacaggggtg tactgtcacc cagtaggggt gacaacatct ctctacactg gagtacagt 300  
 gtgtgatcat agctcactgc agccttgaac tcctgggttc aagtgatcct cccacctcag 360  
 ctcttaagta gctgggtcta caggagtgca ccacttcacc 400

<210> 220  
 <211> 399  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(399)  
 <223> n = A,T,C or G

<400> 220  
 ggaggcgctg ggattacagg catgagccac cgcactctggc ctggccttcc ttgtttttgt 60  
 agcttctctg ctgtccccct atagatttta aacaatgaat ccaacttctg taataattat 120  
 gggaccattt aggttttctg tttcttcttg agtaattttt ttattgtggg aaaaaatata 180  
 taacacaaaa ttgtccatct tttttttttt ttnaaaanng nnttnntttt ntncnngn 240  
 nngggggncn gggnaaaann nttnngaacc naaannncng ggnnnaaaaa anttttnnng 300  
 cntaaccncn cggggngngng ggnnttnttg gnttncccc cctnccccnn naaattttta 360  
 ntaaannttt tttttgnaaa naaannnnnt tttncccc 399

<210> 221  
 <211> 392  
 <212> DNA  
 <213> Homo sapiens

<400> 221  
 taaccacaag gactgtatgt taaacattaa acctacattt aaataaccaa atcatatttt 60  
 cttgaatcca aaattattct gaaaaacaaa acaaagaaat ttaaagtctc aaggctccta 120  
 acgtcacaa aatgcttctg taaaaatttt cagctattta ggggggaaat actagttcta 180  
 gtaagttttc caaaataaag atgtaatgaa aaatagtatc tcagagtcca tcccagtctt 240  
 aagattttta tactctacat aaaccattct tgtaggcatt ttgaaaatat gacctactat 300  
 gttaaaacag ggatattctc aaggatctaa aactatcagg caggttaggg attccaaact 360  
 aaacttgggc aatgagccta agcaaatttc aa 392

<210> 222  
 <211> 398  
 <212> DNA  
 <213> Homo sapiens

<400> 222

gaagaaataa	ccaggatattt	agtcttctctg	cagatcaaaa	gggatctcta	ccatggccga	60
ctcctctgta	aaacatcgga	tgtgccttg	ttagcagctt	acatccttca	agcggagatt	120
ggggattatg	actcaggga	acaccctgaa	ggctacagct	ccaagttcca	gttttccct	180
aaacattcag	agaagctgga	aaggaaaatt	gctgagattc	acaagacgga	actgagtgg	240
caaacaccag	caacatcaga	gctgaacttc	ttaagaaaag	cacagacatt	ggaaacatat	300
ggagtggatc	ctcaccatg	taaggacgtg	tcaggaaatg	ctgcatttct	ggccttcact	360
ccttttgggt	ttgttgttct	tcaaggaaac	aagaggggt			398

<210> 223  
 <211> 376  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(376)  
 <223> n = A,T,C or G

<400> 223						
ggagtgcagg	tggaaaccat	ctccccagga	gacgggcgca	ccttccccat	gcgcggccag	60
acctgcgtgg	tgcactacac	cgggatgctt	gaagatggat	agaaatttga	ttcctcccgg	120
tactgaaaca	agccctttta	ntttatncta	ggcangcagg	nggtgatncn	aggctgggaa	180
nanngttttg	cccagatgag	tgtgtaattt	attgcntatt	tgnttttatn	tttttgctta	240
tggttattat	tcttattttn	tntatctnnt	ntancatttt	tctatttctc	tttgtttttt	300
ttaaatttgn	tnacntttgn	atttttttca	ttntntgctn	tttntttcca	ntttgtnnnn	360
ttntttcttt	ttttct					376

<210> 224  
 <211> 400  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(400)  
 <223> n = A,T,C or G

<400> 224						
agcgcccggt	cgcgcgccgg	gaccgggggtc	cggtgcggag	tgccttctgt	cctgggaaac	60
ggggcgccgc	cggaaaggaa	gaattcgccg	ccgctatcta	cgtagatcca	gacatgataa	120
gatacattga	tgagtgttga	caaaccacaa	ctagaatgca	gtgaaaaaaa	tgctttattt	180
gtgaaatttg	tgatgctatt	gctttatttg	taaccattat	aagctgcaat	aaacaagtta	240
acaacaacaa	ttgcattcat	tttatgtttc	aggttcaggg	ggaggtgggg	gaatttcaac	300
tnntcntgnc	tnccntcttt	gnngaactncc	acttngaana	nanananncc	nntatgnngg	360
atgatgnatc	ctcangnttg	ntnnnccngn	nggttnattt			400

<210> 225  
 <211> 381  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(381)  
 <223> n = A,T,C or G

<400> 225  
gaaatggatt ccaggcgtgt gcctcgagac aagctggcct gcatcaccaa gtgcagcaag 60  
cacatcttcg atgccatcaa gatcacctag aacgagctgg cgtcagcaga tgacttcctc 120  
cccaccctca tctacattgt tttgaagggc aacccccatg ccttcagtct aatatccagt 180  
atatcacgcg cttctgcaat ccaagccgac tgatgactgg agaggatggc tactatttca 240  
ccaatctggg gagtaagtga gttcttggcg ttgtggagaa ggactaggaa gggtgngggt 300  
ttggggngnn nnnnnnnnct nnnnnnnnnn nnnnnnnnnn ngctnntnnn nnnnannngn 360  
nnnnnnnnnn nnnnntnctt t 381

<210> 226  
<211> 402  
<212> DNA  
<213> Homo sapiens

<400> 226  
gagcccgtca agaagcgggg acgcaagggc cggggccggg gtcccccgtc ctccctctgac 60  
tccgagcccg aggcgagct ggagagagag gccaaagaaat cagcgaagaa gccgcagtc 120  
tcaagcacag agcccgccag gaaacctggc cagaaggaga agagagtgcg gcccgaggag 180  
aagcaacaag ccaagcccgt gaaggtggag cggaccggga agcgggtccga gggcttctcg 240  
atggacagga aggtagagaa gaagaaagag ccctccgtgg aggagaagct gcagaagctg 300  
cacagtgaga tcaagtttgc cctaaagggtc gacagcccg acgtgaagag gtgctgaat 360  
gccctagagg agctgggaac cctgcagggtg acctctcaga tt 402

<210> 227  
<211> 393  
<212> DNA  
<213> Homo sapiens

<400> 227  
gagctatggc ggctttggct cgcaggatcc tcagtaaacc tattgaagta caagttggag 60  
gcaggagtgt ggtttgctca gatgtggagc aacaagtgat tgtgattgaa gaagaaaaga 120  
aattcttgaa gttacttgag cttctaggcc attatcaaga gtcaggatct gtcattatat 180  
ttgtggataa gcaggaacat gctgatggtc ttcttaagga ttaaatgaga gcatcttata 240  
cttgcatgtc tcttcatgga ggcattgatc aatatgacag agatagcatc ataaatgact 300  
ttaagaatgg gacctgcaa cttcttgggt ctacctctgt tgctgccgag gctagatgtg 360  
aaacatctga ttctttagt aaattatagc ttg 393

<210> 228  
<211> 382  
<212> DNA  
<213> Homo sapiens

<400> 228  
gtgaatcatt acctagcatt tcagtttttt gcagaagaat attatccctt ctcagaggtc 60  
ctggcctatt tcactttctg cctgtggata attccgtttg cgttttttgt gtcactttcg 120  
gccggggaga acgtcctgcc ctctaccatg cagccaggag atgatgtcgt ctccaattat 180  
ttcaccaaag gcaagcgggg caaacgctta gggatcctgg ttgtcttctc cttcatcaaa 240  
gaggccattc taccagtcg tcagaagata tactgacccc catgcaggca ggatgtgggg 300  
ggcaagatca ggagagtcag gcccctgggc ctctatgcc a ggtggggacc agaagtcggg 360  
aaggcaccta ccacctgcct gg 382

<210> 229  
<211> 381  
<212> DNA  
<213> Homo sapiens

<400> 229  
 ggggaactat cactgtacat aagactgatt cttccaatga acctccaaag acatttactt 60  
 ttgatactgt ttttggacca gagagtaaac aacttgatgt ttataactta actgcaagac 120  
 ctattattga ttctgtactt gaaggctaca atgggactat ttttgcataat ggacaaaccg 180  
 gaacaggcaa aactttttacc atggaagggtg ttcgagctat tcctgaactt agaggaataa 240  
 ttcccaattc atttgctcac atatttggtc atattgcaaa agcggagggt gatacaagat 300  
 tttggttcga gtgtcttatt tggaaatata taatggaaag ttcgtgacct tttgggcaag 360  
 gatcagacac aaagggttaga g 381

<210> 230  
 <211> 416  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(416)  
 <223> n = A,T,C or G

<400> 230  
 aattcggcac gagcccatct ctactaaaaa atacaaaaaa aaattagcca ggcgtggttg 60  
 caggagcctg taatcccagc tacctgggag gctgaggcac aagaattgct tgaacccaag 120  
 aggcagaggt tgcagtgagc cgagatggca ccactgcact ccagcctggg caacagagcg 180  
 agattctgtc tcaaaaaaaaa aanggaatnt gagggggnaa aaaaaantna anggngccac 240  
 atgctcnttc ntgccacngg aacttttnt atgntttccc canttcnttt tttgtcccc 300  
 antttnacat tnttaactcc ccaatcntnn ttnttttttg accgagncaa acccctactn 360  
 tgggctnttg ngccanactt tcctnaggna aaatttttnc ntttgggggg ggtatg 416

<210> 231  
 <211> 396  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(396)  
 <223> n = A,T,C or G

<400> 231  
 aattcggcac gaggtccagg agttattttg cagtgagccg agattgcact actgcactcc 60  
 agcctgagtg acagagcgag actctaaaaa aaaaaanaaa aaaaaaannt nnggnnanan 120  
 aancgggcnn atccaaaaan tcccaccccc ttttngggnn caanantnnc ccaggnaacc 180  
 gggggccaaa ngggnaaccc naaaangnan cngggcaaatn gntaaaggct naggggggnc 240  
 anctntnaaa aaaaantcca ggggggcccc gncnnggnag gnccccannn tttngggngn 300  
 tttncntcca ggnntttnt tnggtcctgn cnggggaannt naaaaaaaaaa tntcnttgnn 360  
 ntttggcag gaggaagnna aanggncccc tttgaa 396

<210> 232  
 <211> 421  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(421)  
 <223> n = A,T,C or G

```

<400> 232
gtgcacctct tcattcagta aaggagggtc accaagagaa tttgatgaac cttaccttca      60
aagttccttg gcacagtggc tcacacctgt aatcccagag ctttgggagg ctgaggtagg      120
aggattgctt gaacccagga gttcaagttt gcagtgcgct atgattgtcc cactacactc      180
tagcctgagc aacagaccaa gaccgtattg ccaaaatacc aaaaaaaaaa agttcatgga      240
gagccacnta nacntganac cacncttcag cctgaatttt tntaaaacac agttgtntca      300
agcanattac tccacacgtt tttccacact gaactctcca gnccttccac ttccttaatt      360
ctgcaaattg aggggggggg gactcttggg aaactactcc tgtaaaattg aagttggagg      420
g                                                                421

```

```

<210> 233
<211> 386
<212> DNA
<213> Homo sapiens

```

```

<400> 233
atcgcttgaa tccgggaggc ggaggttgca gtgggccgag ttagcaccat tgcactccag      60
cctggggcgc agagtgagac tccgtctcaa aaaataataa atgaagtaac aatgggtgaag      120
tttgaagtaa ctcaggtgaa gtaacaccta agtggaaatt ccatactcca ctcagtaaac      180
catgcccggc cccctcctcaa tggttttatc tgtcacactg gtgctcctgc aatggacaaa      240
ggagacgttt cctgtaggac cagcatctct ttactcaggt ttttcaatct tggaactgct      300
gacatttttg gccaaagtaat tctttgttgc agggactgtc ctgtgcattt caggatgttt      360
aacagcatct ttgtcctcta cccatt                                     386

```

```

<210> 234
<211> 396
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(396)
<223> n = A,T,C or G

```

```

<400> 234
gaaaaaagta tgaataagtt cataccaata atacctgtct tgctgggtgg ttataaaaga      60
gaattatgtc cagtaccta cccagtgcct ggcaaaggta ctcaaatect ggtgggtgata      120
ttattaaagt ttaaaactta tcctggcaaa ngattccctt catannttca cccatnactt      180
ctattccagn gccccnttnt nccccccca aaacacagtc gctgatctta ccntgccttt      240
gcnngcntnn gttattcaac tcccttctga cttgntaact ntnanctttg antcttntgc      300
tcnnanttgt nnnctctctg anatttannn nacntcgnc cnnctcttat nncnctncct      360
cttactnatt ctactatatn tncnntncna tatctc                                     396

```

```

<210> 235
<211> 378
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(378)
<223> n = A,T,C or G

```

```

<400> 235
ttcctggcct gatatttcac tggggaccca tcatgattct gcaactattc tcgctcaaca      60
gaacattacc accttgagtt aaagaggcta agaagctaag gttaatcatt attaattgatt      120

```

caaggtgggc	aaacaccatg	tgggcacaat	gcaccccttc	atggattaat	tactctccaa	180
tgattgtaca	tttcattcct	gctaccgggc	tctattaccc	tgcttttttt	tttttcancc	240
tgaccagggg	ggnaaaancca	ncnctntttt	gccaaaanaa	nattttctna	gggagaaanc	300
atnnaancnn	tttttttttn	cccccaanna	gtnnccaggga	ntnntanggg	gggggttttgn	360
tngccngaaa	aaaccttt					378

<210> 236  
 <211> 200  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(200)  
 <223> n = A,T,C or G

<400> 236						
aattcaaggc	ctcctcgagg	gctttttttt	tttttttttt	tttttttttt	tttttaaang	60
gggggncntt	tttttaaaaa	aaangggggn	aaaaaaaaaa	nnnnnanntn	nnnnncaaaa	120
anttttnccc	ccnttttttn	ngggggnnnn	tttttnnaan	aaaannnnnt	tnnttnnggg	180
ttttttaaaa	aaaaaaaaaa					200

<210> 237  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(393)  
 <223> n = A,T,C or G

<400> 237						
aattcggcac	gagggcacgt	ggtaggcggt	tggtacatgg	gaatcgctgt	tgggggtgtca	60
cctccccaga	aagttctcgg	cttcagtaag	cgcgtccccct	gccaggcgcc	ctggcaatgc	120
agaggagtca	ccgagctccg	cctttgacca	gcgtgcagct	gggagagtga	gatcagagac	180
cacagcagat	cgtggcgctg	tgatcagggg	gtacactcaa	gctgtgggtc	ccttacccca	240
gccttgagat	cccaggaagg	cctgcagcct	gaaacggggc	ttgaaagggtg	cgtagtttct	300
ctgaaaagca	tcacccaggt	cagaatgaaa	ggaaactctc	tgtgcagacc	gctgtatgtg	360
ggacctttga	agacagtcaa	atantgttca	att			393

<210> 238  
 <211> 412  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(412)  
 <223> n = A,T,C or G

<400> 238						
gggcatgggtg	gcaggcgctt	ataatcccag	ctactcagga	ggctgaggca	ggagaattgc	60
ttgaccccgg	caagtgtagg	ttgcacctag	caaccactcc	actgcactcc	agcctgagcg	120
acagagcgag	actctgtctc	anaanaaaaa	aaaaaagnnt	ntanccccna	gggttttntt	180
nggnccttgg	aancnntngc	cgcnngggtt	gnnnncnang	ggttnngtngn	nnnancccaa	240

annnaannnt	tggcnttttt	nnaanntnag	nggggaaaaa	aaaaaacccc	ntnntcnttn	300
accnttttta	taaccnnggg	annaannntn	tatttttann	gtngcnaann	nnacttngtn	360
annngggggt	tnacntgcan	tttttnacn	acggaatttt	ttttnttttt	tt	412

<210> 239  
 <211> 411  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(411)  
 <223> n = A,T,C or G

<400> 239	
aattcggcac	gaggcataag taaggtttgt tcctggcctt ggtgaactga caaaggcgag 60
gaaagaatgg	acagatttttg gtaagtgtta aaataataac cagctggtgg tgaaccagtg 120
tcctgaacct	tgtgcttaag tctcctcacc tacctgggct ccttaccctt acccgtaga 180
gggcccgggtc	ccatgtcctt gaagacctgg tctctctggg tggtcagtat gcagtagtat 240
ggcagtgtat	aatttgatca cctctatag tccccgtgga ttggagaaaa aatctgattt 300
aatgccacgt	tccccctttc tacgattgga tgccacagat ggcacagggtg gagaagtcaa 360
gagactgaga	aaagtcanac agttggcgac tcattcttct caaatggtaa a 411

<210> 240  
 <211> 417  
 <212> DNA  
 <213> Homo sapiens

<400> 240	
aattcggcac	gagggcagac actgcacgtg ttctacagag aagaaagagg atgatggtaa 60
agcagactgc	agtcttcagg cctggagcag agaagggaga gttcctgctc tagagaaaag 120
attttggccac	gttggctagg ctgctctgga actcttgacc tcagggtgatc tgccctgccac 180
ccaacctact	gggattacag tagccagtcc tgccagggtt ctggctgtgc cgggacagtg 240
aatggccact	ccgtcccaga tgagctgcag gaagcgtttc gatgtcatgt ggagcaggag 300
ccgccgagtg	attgatgggc ccagcttga atggaaagtc cagattccag caacacagct 360
taagagatga	aggttgcttg agcaggaaat ccaccatgg cccaaagagg aaagatc 417

<210> 241  
 <211> 407  
 <212> DNA  
 <213> Homo sapiens

<400> 241	
aattcggcac	gagaaaaaat ggaaggaaca ggctcgggaa atggcagata ctgcatgtga 60
ttctgatgtc	ctgcttcagc tgggtgcttgt ctggctgggt gaagtgctag gtgtcattgg 120
ggactgtcca	gagctagttc agcgtcctt cctgggtggct agtgttctgc ctggccccga 180
tggcaacatt	aactcaccta caagaaatgc tgacatgcag gaggagctaa ttgcctccct 240
agaggagcaa	ctgaagctga gtggggaaca ttctgagtct tccactccac gaccagatc 300
atctcctgaa	gagacaattg agcctgaaag tcttcaccag ctctttgagg gtgaaagtga 360
gaccgagtct	ttctatggct ttgaagaagc tgacctagat ctgatgg 407

<210> 242  
 <211> 408  
 <212> DNA  
 <213> Homo sapiens

<400> 242  
aattcggcac gaggacaggc acagctctgc tgtcagcact gctgtggggg tgactgtagc 60  
cccagtctgc cctgggtgtt ttctctcgct cttctccatg ccggcctttg cctctagact 120  
gagaaaccgg ggttgactca agtggcacct gcaaaagtga tcatggcagt tcacttagcc 180  
tgcaggtgac agggactgtg aatctagtcc ctggcgagcc tggaaagagg ggcaaggtag 240  
aggctctggc tgccgggggtt tctttggtga gtccgttcac tgggctggac acagacggat 300  
caggaagat tctgttgct actcggctgg tggccagagg gagagaggac gtgtccgtaa 360  
ctgaagcaag gtggataagc ttcgggaacg agcgaggcac agattctg 408

<210> 243  
<211> 401  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(401)  
<223> n = A,T,C or G

<400> 243  
gatggcttaa tctgccctca gcagggatga ctcaacaccg ccctcaacag ggatgactca 60  
gcactgcccc tcaacaggga tgactcaaca ggggatgact caacactgtc ccttatcagc 120  
gatgacacaa gcaaggatga ctcagcactg cccctcacca aggatgactc agcactgccg 180  
ctcaacagac atgactcagg gatggcttag tactgcccct cagcagggat gactcagcag 240  
ggatgactca gcaccacccc tcaacaggga tgactcagca gggatgactc agcactgccc 300  
tcaacaggga tgactgcagg gatgactcaa cactgccctc agcagggatg actcacactg 360  
ccctcagcag ggatgactca acanggatga ctcanccaccg c 401

<210> 244  
<211> 398  
<212> DNA  
<213> Homo sapiens

<400> 244  
ctgctggagg ccttgcagtc cggggctgcc ttccgcgaca gaagaaaaag gacaccgatg 60  
ccaaaagatg ttcggcagag tctcagttcca atgtctcaga ggctgttct gaaagtgtgt 120  
aaccatgaaa atcagaaaagt gcagttgaca gaagggtcac gttcacacta caatatcaat 180  
tgcaactcaa caaggactcc agtcgccaaag gagcttaatt ataatctaga cactcatcag 240  
tctactggga ggatcaaggc agctgagaag aaggaagcgt gtaatgtaga aagcaacaga 300  
aaaaaggaaa cggaacttct tggtctcttt tctaaaaatg aatcagttcc cgaagttgaa 360  
gccctgctgg caagattacg agctttataa gttaaact 398

<210> 245  
<211> 420  
<212> DNA  
<213> Homo sapiens

<400> 245  
gtgagcccga aagaaaaaaaa ttttctgtaa agtgaagaag gatgctgggt cctggggctg 60  
ctctggggcc agaccttacc ctcctgctcg gggccactga aggcagagca gggcccagaga 120  
ctgggccttg tgggtgttacc gctgccttga gagcaagaga cagggtgac gtgcagaact 180  
aggcaggctc caggcaagct tggcgtcagc gctggcagcc ttggtggcgt gggcacaggt 240  
gacaggagcc tggtgaaagg ggtgagcaaa gcatccgggc tactgagctg catggccttg 300  
ggcacttcag tgccctctct gggcctgggt gttttccttc tagccctgct gagtgcgga 360  
ggtgggcttt acccctgaga ccgctgtgtc ttctaagtga aagccatcca atatgctttt 420



<210> 246  
 <211> 407  
 <212> DNA  
 <213> Homo sapiens

```
<400> 246
aattcggcac gaggggtctga agactgaaag agtcgaatgg tttggtggca ggggtgtcctg      60
gtggattggg ttctgttaagt tcagattctc ataaatcgtg tgagcgtcgc cgacacctct      120
gagataaaaag ggcccctttc gactagcctc tgctgaaagg acctagaaga atcccttagg      180
atgaagctga gtcttaccaa ggtagttaat ggctgtcgcc taggaaaaat aaaaaacctg      240
ggcaaaacag gggaccacac catggatatt ccaggctgcc ttctgtatac caagactggc      300
tccgccccac acctcaccca tcacacgctg cataatatcc acgggggttcc tgccatagct      360
cagcttacgc tgtcatccct agcagaacat catgaagtct tgacaga                        407
```

<210> 247  
 <211> 377  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(377)  
 <223> n = A,T,C or G

```
<400> 247
atccgctggc ctctggaaaa ggatttttgg ctgagatgct gggcgtgggg gacttctatt      60
acgaactagg tgtccaaatt atcgaagtgt gcctggcgct gaagcatcgg aatggaggtc      120
tgataacttt ggaggaacta catcaacagg tgttgaaggg aaggggcaag ttcgcccagg      180
atgtcagtca agatgacctg atcagagcca tcaagaaact aaaggcactt ggcactggct      240
tcggcatcat ccctgtgggc ggcacttacc tcattcagtc tgttccagct gagctcaata      300
tggatcacac cgtgggtgctg cagctggcag agaagaatgg ctacgtgact gtcagtgaga      360
tcaaagncag tcttaaa                        377
```

<210> 248  
 <211> 385  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(385)  
 <223> n = A,T,C or G

```
<400> 248
aattcggcac gaggcggcgt ggggttagac aggtaccggt cagattacgg tgacacaggc      60
ggcgtggggg tagacaggta ccggtcagat tacgggtggca caggctgcgt ggggttagac      120
aggtaccggt cagattacgg tggcacaggc ggcgtggggg tagacaggta ctggtcagat      180
gcacgggctc cctaaacccc tgctgtggct tcggcagtaa agacaggacg caccatgtc      240
acaagaggag cacaggcagg ggtgttgggt ttggggcagt cctnanggtc ttcagacccc      300
agccccactc acacagcacc taggaangaa tgcagagtcc cangtgtcag cntggtgggt      360
nttnangggc tgtccttcct ggaag                        385
```

<210> 249  
 <211> 428  
 <212> DNA  
 <213> Homo sapiens

```

<400> 249
tctttattga ctttttgccc taaattgcta ggtgtgaccc agcaatcttt taggaagaga      60
ttttacagtg gtgctttatt tatatcaata atccagtata gtttaggetgt tcattcctca      120
taatagagta cataacagaa aagtgggact ttcacatttt catatttagg caggttccaa      180
tttaattcca aaaatactct gtaattctac atctaaaaaa accgattccc taattcgaat      240
ttattggtag caaagctctc tttgggtata gacaattaag agttgacctt ttaagttaat      300
gtatatgctt aaaaacagtt ttaggaaaat atttggtaga caaagagttt caactttaaa      360
tgttcactat gtcatttagt gccaaacttta cggatagggt gctatctaaa taggcatttt      420
tagtcatt                                     428

```

```

<210> 250
<211> 428
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1) ... (428)
<223> n = A,T,C or G

```

```

<400> 250
aattcggcac gagataatct ggaacatcca acaactcaaa actgaagctg cctcctgtgt      60
gcccacaaga tgtgataagc accatacctg acaccagatt tgcaaagaag ctgctccact      120
gcacccatct tgctgcattt agattctctg tcctattgtt aatgcagata tagttgcaca      180
ttaaacccta ttgtttgtag gccgggctg gtggctcaca cctgtaatcc cagcactttg      240
ggaggctgag gaaggagaat tgcttgaacc tgggaggggg aggttgagct gagccaaaat      300
tgtgcaccat tgcaactccag cctagacagc aagagcgaga ctccatatca taaaaaaacn      360
aaacannaca aaaaactatt gttngtattc tcgntttaag attgtcttat aaaaggtttc      420
tgtcagga                                     428

```

```

<210> 251
<211> 427
<212> DNA
<213> Homo sapiens

```

```

<400> 251
aattcggcac gagcagagat gagtgcagaa ttcagcttgg aggtcctgga aacttctagt      60
ttactgatgt ttatgctttt gctcatgcac ccacagttcc tgggacacag aatgctcacc      120
tgggggtttg taccacagcc aagaagggtgt cttcacagac tcccctcctt ttagcaactt      180
catgcagatg gagcttgggt ggatggatcc tggcacagtg ttcagaacag tggccctgcc      240
agtgtgtggg cgccgcttgt gcagagcccc tgtgggttct ggtcctcaag ggcaggggag      300
ctcactgaca gcggaaccca tagtaccagc ccatctttgg tgggctgttt ccacccattt      360
catccctgct tagctcttca taagacagcc tgtgctggca gaaaattgcc cccagtgcaa      420
gactaag                                     427

```

```

<210> 252
<211> 432
<212> DNA
<213> Homo sapiens

```

```

<400> 252
gtttaaagag agcatgctga cactggggaa ggaaagcaag actccaggaa aaagctctgt      60
tcctctttac ttgatctatc cttctgtgga aaatgtgcgg accagtttag aaggatatcc      120
tgctgggggc tctcttcctt atagcatcca gacagctgaa aaacagaatt ggctgcattc      180
ctatcttcac aaatggtcag ctgagacttc tggccgcagc aatgccatgc cacatattaa      240
gacatatatg aggccttctc cagacttcag taaaattgct tgggttcctg tcacaagcgc      300

```

```

aaatctgtcc aaggetgcct ggggagcatt ggagaagaat ggcacccagc tgatgatccg 360
ctcctacgag ctccgggtcc ttttcctccc ttcagcattt ggtctagaca gtttcaaagt 420
gaaacagaag tc 432

```

```

<210> 253
<211> 436
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(436)
<223> n = A,T,C or G

```

```

<400> 253
aattcggcac gaggcagaat ttgtttggca taaactctct ggatccatgt tgtcagcaga 60
gagtttatgc caaacaaatt ctctgctgac aacatggatc cagattttgt ggagaggcga 120
cggattggtt tagaaaactt tctcttgagg attgcttcac atcccatcct ttgtagagac 180
aaaatcttct atctgttttt aacacaggaa ggtaactgga aggagactgt gaatgaaact 240
gggtttcagc tgaaggcaga ctccagggtta aaagcgctta atgcaacatt cagagtgaag 300
aaccagaca agagatttac tgaccttaag cactatagtg atgaactgca gtctgcatct 360
ccatcttctt cgagtcagag ctagagtagc agatcgactc tatggtgtat ataaagnaca 420
tggaattat ggccag 436

```

```

<210> 254
<211> 412
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(412)
<223> n = A,T,C or G

```

```

<400> 254
caactctgaa tcccagtttc tagtgagcac catgtgtaag acttgcttga tgtgtgtttc 60
atttgtttgt ttcattcatt gtatcaatgg tttcctctcc cactttgcct tctactccca 120
agtgactgtc aaagatgatg taccttttcc atagtcatca ctgcgcaaag gaataaaaac 180
ctggagtgtc agtctctata gtctgtgtga gcagcactcc catcctacaa agaattccat 240
tgccctgtaa ttatgatttg cgatagggta caatatgtac ccagatatca agtccaccgt 300
tggcgtccct cttccccctg caacaccgca angnggtgta cttnaaggag anttttgggg 360
cagntncccn aantcaantg ccattgcttg cctgaacttg ctttaaanca ag 412

```

```

<210> 255
<211> 410
<212> DNA
<213> Homo sapiens

```

```

<400> 255
actttttgag gaactgccag ttttctaaag caggcgcccg caccatttga cattcccatc 60
agctgtgtga gggttccagt gttcccacat ccagttactta ctattttctg tctttttgat 120
tataggtatc tttgtgggtg tgaaatgata totcattgta attttgattt gtttctaattg 180
actagtttca ttgagcatct tttcatatac ttaactggcc atgtgcccc attgctaaaa 240
cttagcactc tgttttgtga taatttccta gtttgccctcc tttgctaact agaatttctg 300
ggagcagaac ttatgctttt tttttttaat cttcatgacc ctgacagcag gacagcactt 360
ggtactaatg ggctctaaaa taattcaatt ggaaaaggaa tagtatcctt 410

```

<210> 256  
 <211> 421  
 <212> DNA  
 <213> Homo sapiens

```
<400> 256
cagcagtaaa tggcagctgc ccactcccgt gatcagaggg ctctgggtgc gagctgcagc      60
agggcgtggt ggaaactgcc atgagatgca ggaccctcca attatctagg gggccaggcc      120
catctcagag gagcagctcc agaggtgagc gcacaccact gctaattctg cagagggtcc      180
ggtctgactc ctacctccca cccagccaag gctctcacct gtgtaccctc tcctgtctct      240
gaggcttcca ggtgatggaa gtttatcctt tcccttgccct atttgcgtta tgggcggatt      300
tatgattgct ttttagcccg ttttatggaa atctttctaa gatgtactag gaggacctcc      360
ttttccaga tcaacgtaga agtgtcttgt aaacttcgat gactcgggtgc tgtggaaaaa      420
t                                                                                   421
```

<210> 257  
 <211> 411  
 <212> DNA  
 <213> Homo sapiens

```
<400> 257
ttagcaagca tcattatatt tttagaaatg ttttcttttc tccttgcccg tcagttagcc      60
aagcctccta ccactcactt tctgttgtgt agttctgatt ttccgaacag gtgttttagat      120
gatgaggggt tatattaaga aagtactaaa gaatacgtct tatcacgtga atcagtatct      180
ttttattcaa catggatgga gtgggagtgg agaccaatct gttttatatt cctgcaatct      240
gatgagggta agaaaaagtt catgctgttc atattagcta gccagcctct ttctctcttt      300
ccctcccttc cttcttttct ctttattttt tctttctttc ttttgctaac acctaattcc      360
ttatctcatt tttgggattt tgagagaata attttcatgt ggggcgacag a                   411
```

<210> 258  
 <211> 409  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(409)  
 <223> n = A,T,C or G

```
<400> 258
aattcggcac gagggaggaa gaggcggtag ggggtacggg ggctgggtccc agaagatggc      60
ggaggcgggg gatttctggt aggtcctact ttaggacaag atgtgggtacc gttgaagcgt      120
cagtctttga ttcacagaca gttgagcttt tcagctggga agcctttcca tttttttttt      180
ttaacggnnt tntgancctn tgaancctg gcaaaaggan anacanagtc ccctggnccc      240
aaaaaggggg gcccatntnt ttcnttnnca ctanccaaag ggngaacttg atgattcgng      300
gagtagggct attttttatt ggagnatttc ttgcattang ggtaaattta cttcaaattc      360
aaaaaaatgg gccctntttt ccccgagggg gatgnaagca tttttttttt                   409
```

<210> 259  
 <211> 426  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(426)

<223> n = A,T,C or G

<400> 259

tgaagaggag	atcggtgacc	tgggctcctt	atgtgcctga	aagagtttga	gtttcctggt	60
aactccaaat	caacagtatt	ttcaacaaga	aatgtgcaat	tgaaatcaag	tgctgtttta	120
gtgcagctag	gatttccaca	ggaagacact	tgcagtgaac	agagttatgg	agcagcaaaa	180
acacagatct	atttggaaaa	agagaaaaa	tatgcgttgt	attttgcttc	aattataaaa	240
taccatcctc	tcaaagggtg	ttctaaatta	caaaggactt	tgatttctag	gtagattctg	300
ggtagagact	tcctttcata	ttgaggcatt	aatgacacct	tttaacctgg	gaagcaatat	360
gactggagtt	gtactttgag	aagattaatc	aggtttggtt	gcagaatgaa	aganaagatg	420
aagcca						426

<210> 260

<211> 419

<212> DNA

<213> Homo sapiens

<400> 260

aattcggcac	gagacgtaga	gcatcagggg	tttcttccag	gtagggcttc	acttagagtc	60
cctcctccat	cagcaaata	agatgggttt	tcacatcttc	tctccatata	tttatctctg	120
cttctgatcc	acaaataagg	gctgaaatgc	aggtatctcc	acagagtggg	ttgtagaaac	180
catatgggtc	aaatccattc	ttggacaaga	agcatttctc	cagagttaac	agagtctgca	240
gagatgtaat	tttgcctagg	ctttacagct	gtggtcttgt	aacaatcttt	atttcataag	300
ctctttgcat	aattaaactg	cctattcggc	cagtcttcct	aggatgaaga	aattgtctcc	360
acaaagtaag	tagtattcag	tttctacaaa	gagatagtct	attgccaaag	gatatccac	419

<210> 261

<211> 424

<212> DNA

<213> Homo sapiens

<400> 261

aattcggcac	gagaatgatc	ttccaccagg	cacttcacaa	gagaacatcc	cagtgaggcc	60
agttgtgatg	aattctgaga	tgtggtacaa	gcgtcacagt	attgcaattg	gagaggtgcc	120
agcttgccgt	cttgtccacc	gcagacagct	gacagaggcc	aatgtagaag	agatatggaa	180
gtctatgaca	ttatcatact	tacagaaaat	tcttggcctg	gattccttag	aagaagtttt	240
agacgtcaaa	cttgtcaatt	cgaagttcat	catccataat	gtatatagt	ttagcaagca	300
gggagttggt	attcttgatg	acaaagtcaa	aagaacttcc	tcattgggtg	ctgcagctat	360
gaagtgtttg	gcaaattggc	ccaactgttc	tgatttgaag	cacctatgtc	ttgggatttg	420
aaaa						424

<210> 262

<211> 422

<212> DNA

<213> Homo sapiens

<400> 262

aattcggcac	gagctgagca	gtaggetcct	tttgtttacc	atttgcacca	tgagagcttc	60
tccattcaaa	ggcataaaat	gttattggaa	tctacctgca	aaatgaattg	gctgattggt	120
ttctgttcag	acacagatac	agcaaattgc	cactaagaat	ctgcttttgc	gtataccgtt	180
ggctgtaatt	tatgtagcaa	ctggttcctg	ggaatttcaa	gaagaaactt	gttttcttat	240
cctcacctat	aaagtaagca	ccaaaattta	aattataagg	cagataacct	aagtccttta	300
cctctatctc	aaccttcaag	gcctgtttct	tgggtactct	gcctgtttca	taggattctt	360
accgtttgtg	ggaggcttgg	agggagtagt	gaggaaccag	ttcctgagga	tgtctcaata	420
aa						422

<210> 263  
 <211> 407  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(407)  
 <223> n = A,T,C or G

<400> 263  
 ctggatttca gatttctagc tttcaaaact gagacagaat aagtttctgt tgttttaagc 60  
 tccccctcc catttgtggt agcttggtac ggcagcccta ggaaaataat agggcaaagc 120  
 agagtttctt gccagtatg tccccttgct cactactggc ctgcagtcct ggtggtcaga 180  
 cttatccttc tcgctctgtg ccttgctagt cacaaccccc ctcagcaaaa tgatgtgcaa 240  
 gagaagttag agaaaagacc tttcatgcaa ctgagaacac agccccgaag cctgacttgg 300  
 ttcacacctt gcccaagtct aatttgccaa agaccttgaa agtgacctta ggatgntaaa 360  
 gatacatttt ggtagagaga gagagagaga gagagagaga cnetttcc 407

<210> 264  
 <211> 417  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(417)  
 <223> n = A,T,C or G

<400> 264  
 ggatcgcgctc attgcactcc agcctgagca acaagagcga aacaaaaaca aacaaacaaa 60  
 caaaaaaaaaac ccaccccaaat cctttttttt aatgtagtag ggtttatata gatatactaa 120  
 tataattgca tttggagaat taaagtatgt atggagccca cacatactgt gatataaagt 180  
 gtatatacag atatttggat attttctagt ttgcatgatg attaagagaa ccacatggga 240  
 aaatacnatc tncaaagtga tgtttatcct ggaattacc antttanatt anagagggtg 300  
 ttcaaattta actagataac tctagtttgt actgtatagg tgcagttatg acagtaaaaa 360  
 aatagcctct tggctcatatc ctgtaatccc ccactttggg aggccaaggt gggagga 417

<210> 265  
 <211> 419  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(419)  
 <223> n = A,T,C or G

<400> 265  
 aattcggcac gaggagcctt cttgtaaggc cttctgggtgc gatccctggt gggctgcttg 60  
 gcctacctgt tgctgtgccc gccttgcaac tgaggcgcag ccaagatgaa gctggagtcg 120  
 gcacaggtgg tgaggaggga ggacggagag accctgtgcc tttgatgaca atgctggcag 180  
 ctgcctctgt cctctcttgt tatcttagca aaacgaatcc taaccctgtt ttatgctctg 240  
 ctgggttagt tttgtgttcc taactgatgg actttaggaa gctgagggct tcttaccgga 300  
 ggtagacgtt aaactgtgaa tgctaaaacc aaaccaagtg tccatgtgag tgnngngngaa 360  
 ctttaanaca tgtacagnta ttatcaccnc cacgttatat tcangtctga cacttaatc 419

<210> 266  
 <211> 416  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(416)  
 <223> n = A,T,C or G

<400> 266  
 aattcggcac gaggaagtac tgtggctgta tacagaacct gtatgctggt tgttcttttg 60  
 cgggtccaga taaacataat tgggtggatat atttacctgg ataatgcagc agttggcaaa 120  
 aatggcacta caattcttgc tccccagat gtccaacagc agtatttatc aagtattcag 180  
 cacctacttg gagatggcct gacagaattg atcactgtca ttaaacaagc tgtgcagaag 240  
 gtttttaggaa gtgtttctct taaacattct ttgtcccttt tggacttgga gcaaaaacta 300  
 aaagaaatca gaaatctcgt tgagcagcat aagtcttctt cttggattaa taaagatgga 360  
 tccaaacctt tattatgcca ttatatgatg ccagatgaag aaactccatt ancagt 416

<210> 267  
 <211> 389  
 <212> DNA  
 <213> Homo sapiens

<400> 267  
 aaaaaaacac aaaagccccc ctttataaat aaacctaacc cacacacaca caaagtttgg 60  
 tgaatgagta tatatatacc actgatgaaa ggaaggtgaa atgtttgcca tacatatattt 120  
 tatgatcggt tacctgaaat taacctttta aattacataa ccaattgttc taaatcacat 180  
 tagataaaag ggtttttact gcataatatc cataatatat aaagagctcc taaagatcaa 240  
 taagagaaag gtaccacta caaaaagcaa aaagtggcag aagattatac atggggcattt 300  
 cccaggaaaa gaagtactgg tgaataaaaa agaaaagatg ttcaaattga ctctggttat 360  
 taggggaaatg taaaccggtt ttcaccaga 389

<210> 268  
 <211> 405  
 <212> DNA  
 <213> Homo sapiens

<400> 268  
 aattccgttg ctgtcgggtg tgggtcacac ctgtaatccc agctactagg gaggctgagg 60  
 caggagaatc gcttgaacct gggaggcgga ggttgacgtg agctgagatc acgccactgc 120  
 actagagcct agacatgaga gcaagattcc atctcaaaaa aaaaagaaaa gaaaaagaga 180  
 gctctgaaca agcgcttta gggtcacaga gaaagtgcaa cctgctggag gctgagagtt 240  
 acaggtctgg aaggcgctc tgtgaggaga ggaagcccca ggcgcgagcg ctcatatttca 300  
 gtcattctta aatagagcaa accaggctgg gtgcggtagc tcatgcctat aatcccagca 360  
 ctttgggagg ctgaggcagg cgggtcactt gaggtcagga gttct 405

<210> 269  
 <211> 396  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(396)  
 <223> n = A,T,C or G

<400> 269  
aattccggtg ctgtcgggtga agctggcatg gctaagggag accaaaaagg tcactgtggt 60  
tagcttgga tgaatgaggg gtggtaaaaa tggaagtggg gagaatgagc acatttgaga 120  
tatattttga aagtagaggg aacagagaaa gagatggctc cttatttgtc ctgaacaagt 180  
aaaagaggag gagttatagt tagcacagat gaagaagact gtgtgtggag aaattatatt 240  
attttatttt attattgggt gtagatggac tcagagttta gttttggata tgttaacttt 300  
gaagtgtctt attaattatt gcagtgtgaa accactttat cagacagtag naaaaatctc 360  
tcttataaag ggaacaaaag gagtanaatg tttgtc 396

<210> 270

<211> 406

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(406)

<223> n = A,T,C or G

<400> 270  
aaaaaaatag acaaactctt ggtatatacc aggctatctt ggtttgctgc agctgatcaa 60  
atgaaacagt ttgttatggg ttacgaatg agaatacac agactctctt ctaatttaaa 120  
gcccctgtgt gaaaatgttc agtcaggctg cagcagtata ttcaagagg atgaaatatt 180  
cagccaaggt ctctctgcag tccaggcaga cagctggaaa ggtgcgctct gagttctgat 240  
taaactgtgt ccccatacca ggggcttcct gtttcttgca tcctttacct gagaggggac 300  
aatagttctt tctaacttaa ctgagctgat tggcatcttc ccggaaanct ttaattacg 360  
tgtggcacc ctaaaaagggg gatgaccacc gaaccatcac cctgag 406

<210> 271

<211> 404

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(404)

<223> n = A,T,C or G

<400> 271  
aattcggcac gagaaacatt ctgttttagt catccttgag gatcgtttta actccttgat 60  
ctgtaaaact gtcttaagca tcttaacatg ttacatcaca gggtttttagc tcagatttcc 120  
aaagagccat attttttgat gcatatttcc agttgaattc cagtgtgaat ttccagttgt 180  
actttgcatt ctgattcttt gatatttgaa cttggccatc tgtgggtgct actctcgtaa 240  
gactaaaagg cacctactaa atacgaacaa ggataaccag ttctaccaaa aacattacca 300  
accaaacctc ccctgttctt ttttcagact ttctttttgc tttcaacctc ttaaactgta 360  
aaggagagat ttaatgnttc cctattattc tgctttgact caca 404

<210> 272

<211> 396

<212> DNA

<213> Homo sapiens

<400> 272  
aattcggcac gagggattac aggcacgtgc caccatgcct ggctaatttt tgtattttta 60  
gtagagatgg ggtttcacca tcttggtcag gctgggtctca aactcctggg gatccacctg 120  
cctctgcctc ccaaagtgtc gggattacag ccatgagcca ctgcaccag ccggcttcat 180



ctcttcttga	aatcactttt	ataccattct	atgtggttct	caccatgagc	ttgagtgggtg	240
ggctaaagtg	cctctccctg	ctttcagctt	cctgctggga	actcactctc	tcaagttcct	300
tccagcacca	ccccatagag	ttcccatac	tccacactgt	ccagtgacaa	ctcccaacat	360
ggaagatctg	ctagttctac	agggtgctct	ctggct			396

<210> 273  
 <211> 420  
 <212> DNA  
 <213> Homo sapiens

<400> 273						
cacttcccat	gctcctaggg	ttaggaatag	tttcaaacat	gattggcaga	cataacaacg	60
gcaaatactc	ggactggggc	ataggactcc	agagtaggaa	aaagacaaaa	gatttggcag	120
cctgacacag	gcaacctacc	cctctctctc	cagcctcttt	atgaaactgt	ttgtttgcca	180
gtcctgccct	aaggcagaag	atgaattgaa	gatgctgcgc	atgtttccta	agtccttgag	240
caatcatggt	ggtgacaatt	gccacaaggg	atatgaggcc	agtgccacca	taggggtggtg	300
ccaagtgcc	catcccttcc	gatccattcc	cctctgcatc	ctcggagcac	cccagtttgc	360
ctttgatgtg	ccgctgtgta	tgttagctga	attttgatga	gcaaaatttc	ctgagcgaaa	420

<210> 274  
 <211> 429  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(429)  
 <223> n = A,T,C or G

<400> 274						
aattcggcac	gagatcttgt	tgagcttgta	aatgccagc	aatttaaaac	taggactttt	60
ccccccataa	gccaaggagg	tagaattact	aatacaaggg	ttaaagaagg	tagattttgt	120
tttcaatatt	tgggtaatat	tagaaagatt	cttcccacag	ggaagaacta	gcaagtgtcc	180
caattttttc	caaacgttgg	ggaggggaaa	attcactgta	tcatgaaacc	ctaagggttt	240
gttgcacttc	ctgcttttta	ggcctggata	acagtatcac	catccttatt	tacagaaggg	300
taaaactgac	tcttaatgag	aaaagcttta	taagttcaag	ggctgtaaaa	tatgaactac	360
ttaaggctgt	ttgccttcca	tgggaacttg	gctagactta	naaaaagctg	ttgttgnct	420
aatgtaaaa						429

<210> 275  
 <211> 386  
 <212> DNA  
 <213> Homo sapiens

<400> 275						
acgctctcgg	gagcagttct	gttaatccct	gctgggagca	gagactgcga	aaagctgagt	60
ccgccgatcg	tgcccgggac	aaggctgcct	tccactcgcc	gcactctacct	ggtaggcggc	120
atgcgcacgg	gcttagaggc	ttgagagcct	ctggaagaga	aagggtccca	ggaaggaaac	180
ctgcccccg	cctaagtgtc	ggcgcccaga	tcaccacgaa	ccccgcacct	aggcgccgcc	240
caccaagttc	caaagaagtc	cgaggcgacc	tgggagtcgg	tcggatccca	gccgagaaaa	300
gaaacaagca	ggatagcaat	tcttatggga	gccaccctgg	gagttttagg	cagcgtttgc	360
ctttccctgg	ttttcttacc	aagccc				386

<210> 276  
 <211> 406  
 <212> DNA

<213> Homo sapiens

<400> 276

gggaaatggg	gccctaggag	ggtggggg	ggaaggagg	gcaaggctt	tcaggaacca	60
gacccaacag	gcccttctgt	agcctcccc	ttgccctcaa	agggggagtg	ggggccagct	120
ttacctcacc	cactgtgacc	cgccgcttcc	ccttcagcct	gggaccaggc	tttcctagat	180
cccagcacag	ctctgagctt	gttcctttga	ggcatagaga	gccagagtct	ggcttccaga	240
gcattgactt	cctcttccta	gacttgaggc	cttttctctg	gctttctctc	tttgccctgc	300
agtagcaact	ggtgctggga	caagttgacc	cacctctcac	agtcatgggt	gtggccactt	360
gtgggagttt	cctgtccacc	tcccaaagac	ggccaccag	cgggtc		406

<210> 277

<211> 395

<212> DNA

<213> Homo sapiens

<400> 277

acagcactga	gctagaggac	gacgccatct	attcagtga	cgctccctgct	ggcctttacc	60
ggatccggaa	aggggtgtct	gctcagctg	tgcccttcac	tccctcctcc	ccgtgctgt	120
cctgctccca	ggagggaaagc	cgccacacga	gcaagctttc	ccgccacggc	agtggagccg	180
acagtgacta	tgagaacacg	caaagtgggg	accactgct	ggggctggaa	gggaagaggt	240
ttctagagct	gggcaaagag	gaagacttcc	accagagct	ggaaagcctg	gatggagacc	300
tagatcctgg	gcttcccagc	acagaggatg	tcatcttgaa	gacagagcag	gtcaccaaga	360
acattcagga	actgttgcg	gcaccaaga	attca			395

<210> 278

<211> 391

<212> DNA

<213> Homo sapiens

<400> 278

aattcggcac	gaggtgaggg	ctgtgcaagg	gggaacactg	agcagatacc	tttggccctt	60
tccagctttt	actgacagag	agttccaggc	tagacaccat	aaaaaccacc	ccttggtctg	120
aggggctgag	gctggaaata	gattgtacag	acaagcaagg	gttgagtggg	ggttcccaca	180
cgaagtcatt	tcttaattcat	cattagcaat	agcagttccc	ttccaaggcc	tccctcact	240
cccgaacac	ttacgtccca	tgaggccca	atgcaaaaaa	aaacatttga	gcttttttcc	300
cgcagggcc	tgaagtcctc	ttaagttccc	atatctaaga	tggttgactg	accctctccc	360
cttatgtaca	gaagaggaaa	ctgattctca	a			391

<210> 279

<211> 377

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1) ... (377)

<223> n = A,T,C or G

<400> 279

gtaaaggagg	ggtggtgcta	gacgtttcgg	gcagagctcg	gccgctgcgg	aggacaagga	60
actctccctc	tccactagtg	ctgacttctt	ccaaaatgag	cggcctggat	gggggcaaca	120
agctccctct	cgcccaaacc	ggcggcctgg	ctgctcccga	ccatgcctca	ggagatccgg	180
acctcaccca	gtgccaaggg	ctccgtgaag	aaaccgaggc	gacacaggtg	atggctaaca	240
caggtggggg	cagcctggag	accgttgagg	aggggggtgc	atcccaggat	cctgtcgact	300
gtggcccccgc	gctccgcgtc	ccaantgccg	ggagtcgcgg	cgggtgcagt	accaaagccg	360

ggcaggagga tgctcca

377

<210> 280

<211> 329

<212> DNA

<213> Homo sapiens

<400> 280

cctttttgaa	cttcccttct	attaaactta	aaacagatgt	cttaattaat	caggctgtct	60
tggaagggtg	ttgtattggg	agacaagggg	cggtggtgga	cctcaccttc	aatccaagtt	120
ttcaaagata	ttttctcaat	aactctaaaa	gggaggtgct	tgggattaag	gtgacagtcc	180
acttgatcct	tttctttgtt	ttagtgtgaa	tttcagcagc	tccatctgtc	ttcatgattg	240
tacttgagca	gtattagctg	tatgagttaa	ttttattcag	attgaagatg	gagggcgggt	300
tctgctcact	cagtcttttt	tttttttttt				329

<210> 281

<211> 243

<212> DNA

<213> Homo sapiens

<400> 281

aattcggcac	gagcctggat	gtcaaagtcc	tagagccaga	aatatattct	ctcatccctc	60
ttagcattct	cttgctccct	cattcactag	ggcaaagtgc	taaatgaaga	aaagtctctc	120
tcaacacctc	gttcattgaa	tcagcattag	aatttgtaag	gaaggaaggg	gggtggcatg	180
aaaattttcca	ttcttggggg	atatgactgt	cctgtttccc	ccaggccact	tttttttttt	240
ttt						243

<210> 282

<211> 433

<212> DNA

<213> Homo sapiens

<400> 282

cggaccagaa	ctgtcttagc	ttttccctct	gcggtgtctc	tggttgggta	ctttgagcct	60
gcctcctcag	cgccgcagga	gagacttaac	agcaaaaatg	actgtgtcct	gagttcagcc	120
cccattgtct	tgggagcttc	cccctggttt	ctgcacctga	agaatgtcat	cccagccgaa	180
ggttcttagg	agcggggagc	gacaaaagaa	aacaaagaaa	agcagacctg	aaaattggga	240
cctggggagaa	atgtaagaca	tgtgcttaat	ttgaggcaca	gaccaaagaa	agctgagtct	300
gagggccctc	taaaaagtgc	ctcgtgcttg	ggcagcttac	attcttggcg	gcagtagtgt	360
tatgaagagg	accttcggag	ccagggtctgt	ccattcttag	ggctccagcc	actgctgagc	420
atcaaacgaa	gtg					433

<210> 283

<211> 426

<212> DNA

<213> Homo sapiens

<400> 283

aattcggcac	gagacaggat	gatgggcaag	ttttactccc	aaatctttta	atctacagtt	60
tatactgaaa	aactaaacta	tgtaaaattc	atcagtcacc	tcataaacat	taagatacct	120
tgggaaactc	atacaaaagt	aatgggttaa	acatgacttc	agacttagta	aatcatcctt	180
ttagttttgc	aaaacaaagt	aaaacatcca	ttatatatta	catctctatt	atatcaaatg	240
tggggcacat	cagacaactg	aaatgtcacc	agcctcaagc	agcccacgga	gaagcgtgtg	300
tgttgagagt	cctgctggca	gaggtgcacg	ggggctccat	ctctgagtac	gtttcacagc	360
ttgtaccatt	tacatgtcac	cgccttaagg	cagagctctc	attccccttc	ttaagcaggt	420
agttgg						426

<210> 284  
 <211> 430  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(430)  
 <223> n = A,T,C or G

<400> 284  
 aattcggcac gaggatgagt gatcaagaat tagagtgcc tggagggtcac tcacaagtcc 60  
 tcatggagac tctgccgtga cctcgcgcac gcgagcacct tcctgtctct cattttcacc 120  
 atctgactgg ggctagggtt ggtagaggg cggctgtaga gcaccctcag gagaagtggc 180  
 gccgcagggg tcacgcatgg tccagccctc aggtgggagg gaagtccttg ttggcagagg 240  
 gatgtggggc gggaaatgagg aaaggggagg gcatgatcct ggcaaatagt ctttcctttt 300  
 ccgtaattac agagaaccag ganttttttt aattattgnt attataatta taattattat 360  
 tattattgac atgaggaaac ctaacactgg cagagggcac cttctctgct tttaatcttt 420  
 caggnttgac 430

<210> 285  
 <211> 423  
 <212> DNA  
 <213> Homo sapiens

<400> 285  
 aattcggcac gaggccatca gaactgtgaa agaaaataac attttttctc tcttttttaga 60  
 aagacacagg ttcagaatgg tggtgtcagg gatcacaagc tcccagcccc gtgatttagca 120  
 aattgaccct gctgccctgt ctgctggctg ctttcttatt ctgagaattg tgttgacaag 180  
 accctctttt cctacagagc tctctcttaa tggtgcttgg aatagccttg tgctcctggag 240  
 acagtgttag gtctggcagg atctgagaac aggagtgggg atcttggaat gggatctgca 300  
 tccctgagct tcatccacaa aggttgggaa tggtgcttgg gctgtggggg ggaggttagat 360  
 gaacagctgg acttgacagg ctatcttctg ttgtttctca ataaagtaga caaagtccat 420  
 ctg 423

<210> 286  
 <211> 421  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(421)  
 <223> n = A,T,C or G

<400> 286  
 aattcggcac gagggtggaag gacagcatcg atgaactctc ctggagggtca ctgcaaaggg 60  
 tggcagaccc tgctgaggtc cctgaatctg cagcctccag acaataaact gaaccttacc 120  
 cagaaggctg gcacaaagcc cccagctctg tgggtaggat ccccccttca ctgccctctc 180  
 tctgagaaag gacagcacac ccttgggaaa gggggaggag agagactgag cacaaatcca 240  
 ctgctggaaa ttactattca gcagagaagc tgggtcttgg gctgtgaatc actgcaggcc 300  
 tcctgataag ctgctgcctc cagccctgca cagctgtctg ttgagagata acagcctcat 360  
 aagcttctct gccaaactcca agccagctgg gggggggggg gctntnnnnng ctggaaaact 420  
 c 421

<210> 287

<211> 425  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1) ... (425)  
 <223> n = A,T,C or G

<400> 287  
 aattcggcac gagaggacat ggatcagctc ctccagctaa ccaggaagct tgagagtagc 60  
 cagcccaggc aaggagaggg taacaggacc ccagaaagtc agaagaggaa aagcaagaag 120  
 gccaccaagc agaccctaca agatagcttc ctcttgagacc tcaaattccc tccttctttc 180  
 cctgtcgaga tctctgacag gttgcccgtc gcctcctggg aggggcagga gtccctgctgg 240  
 aacaagcaga cttccaggag cgaagggaact caccctgagg gaacatatgg agagcaactt 300  
 ggtcctgagc tgtgcaacca atcagagtc aggggagaag atttcttcct gaagtccagg 360  
 ctccaagaac aagatgtcnt ggagaagatc cacttctttc tataaccaca tgtgcaacct 420  
 ctggg 425

<210> 288  
 <211> 421  
 <212> DNA  
 <213> Homo sapiens

<400> 288  
 acatcttaca aacaaggctg gagaggaaag agaaggggtc agagtacaga tggcctctca 60  
 tttcaggcag agagggttggg tctgtacatg gaaggcagta gggagccctt gacaactact 120  
 gagcagagat tggcagaact aattggtgtt ttagaatgag cagctgggaa aactccgtag 180  
 aagggaaccag aagaggcaag tctgaaatca aggagccaca tggggagttg ctttaacagt 240  
 agaaggtcac tcacagcttt acccctgtgc aaagagaacc ttggtgcaaa ggttgacaca 300  
 gccacttacc agccatagga ccttgagcca gttttaaatc ttctgtacc tccttgccgt 360  
 atcttgcac tagggatgct cgtgtcattc attcggtcaa ccctaaaagg gcccgtttca 420  
 g 421

<210> 289  
 <211> 419  
 <212> DNA  
 <213> Homo sapiens

<400> 289  
 agcacttttg gagggccagg cgggtggatc acgaggtcag gagatggaga ccatcccggc 60  
 caacatagtg aaacctcatc tgtgctaaaa tacaaaaaat tagccaggct tgggtggtgtg 120  
 cacctgtggt cccagctact tgggaggctg aggcagggga tttcttgaac ccagaaggcg 180  
 gaggttgagc tgagttgaga tcgcgccact gcactctagc ctgacaacag agcaagactt 240  
 cgtctcaaaa aaacaaacaa aaaaagaaat tacattagtt gaggacctgc tgtatgtgat 300  
 atgaacaatg aggatcaact ctttttgtaa tagttttttt acatatgtta tttcatttgt 360  
 ttatttcctc tgtgagggtg agtattgata gtccagtcac agactggtaa cacaggcac 419

<210> 290  
 <211> 416  
 <212> DNA  
 <213> Homo sapiens

<400> 290  
 aattcggcac gaggggaagg agaatttgta aaagttcgta tgctttgcct ctcaactgca 60  
 ttaacatgcc acaggctcag actgtttttg tgtaaaggat gtcaaagaac ggcaactttt 120

ctaaagagaa	gtttgatatt	ttgtatgctt	gttaagaaag	tacagtattg	gaaattaaag	180
gtggacaact	gataattgag	gagtatgtca	attaattttt	tatgtatatt	acctgtttac	240
ttgtacaact	tactgtacaa	attacatgca	gcttcatttt	caaataaatc	cttaaaataa	300
ggaaatcttt	ttaggaaaac	atttaatttt	tgtatttttg	attttaaagg	catgagttat	360
gtcaattttc	agtgtattaa	tgaagatttt	aacttttcat	cagggtgagt	gttttc	416

<210> 291

<211> 415

<212> DNA

<213> Homo sapiens

<400> 291

aaattgtcta	ttaaatagcaa	gacgtggtaa	tatacagaat	ttatcaggca	ttaccaagtc	60
taggcacata	taggaaatgc	agcactcaga	atggtttcaa	tgtagtagtt	gatgcttgta	120
aggtagggga	gcttattcag	acatagtaga	tagtttctct	aatgctgtct	caattgctgg	180
cctttggcta	cctgtacttc	ccattatgg	cagcccat	gcgctttttg	ttctctctgg	240
gacaccttat	gctctgaaat	catgagcgag	gctgattcaa	ttgggtgattt	gggtagaaaag	300
cagtatgttt	tgctgacatt	aagatgtagg	ttatagatag	gtttagccct	taagtgtatg	360
tttttatact	ttaaaataag	aaatataacc	ttttaagcta	ttccctcttc	cccg	415

<210> 292

<211> 417

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1) ... (417)

<223> n = A,T,C or G

<400> 292

aattcggcac	gagggaaaaa	ccaaaccctc	tcttggttaag	ttgtgcoctgc	cagccctaga	60
aactgtcaag	tgtgncactt	tccatcttac	ctaggaatag	tccatttatt	ttcgagccta	120
gctttttgtg	tttctgtggt	tagctgcact	cacacgtacc	aattttttaga	ttcacgtcag	180
ctacatatgg	aggggatcgt	ttgagtctag	atctcactgt	ctgttccctt	tcgaggggaag	240
caagttttct	ctcaagaagg	attttgatgn	ctccgataaa	aatagctatc	ttattaatct	300
aatanttga	agttagaggt	tctgtgtgtg	gagtggggtg	tttgggtgga	cattcgataa	360
gcagctggna	aagnttcctt	tctgagtggg	ctgtaccttg	gaaatgggtc	acacaac	417

<210> 293

<211> 416

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1) ... (416)

<223> n = A,T,C or G

<400> 293

aattcggcac	gaggttgcg	ggtgggagg	cggccaagac	gtctgagcag	tatcccaggc	60
accccttcca	gcccagggtg	acctcgaaag	cagcagagag	aacggggact	ggagggcggg	120
gggcccgtga	aatcctctca	tgggtcggg	gggggggtat	gggggggtga	ctgtcacagg	180
tggaggcagc	aaggcagctc	ctggcagcag	gaagaggccc	aggtgcagca	ggaaaccccc	240
tccctggtgc	tcactgggtga	ccgtgggcag	aggagaggac	aagtctctcc	acacagcagc	300
ctggggccat	gggggtacagc	catcttttgc	aattgtcttc	ttttatttat	tctgcaaaat	360

gcccattccc aaaggcttct gcacccctgtc catcaaacan gacagtcngt gccttt 416

<210> 294  
<211> 419  
<212> DNA  
<213> Homo sapiens

<400> 294  
aattcggcac gagaagccgt ggggacgcgc ccagcggagc taatcagatt acctggctgg 60  
tggttgcttg ttctggagtg atcttctgac tggaaaagaa ctatgtcatg gatcaaggaa 120  
ggagacctct cactcctgcc tgggtgtcca acccgctctg tggccagagt atacattttg 180  
gaacctcttc gaggccatcc tgcagttcca gatgaaccat agcatgcttc agaaggcccg 240  
aaacacattg cattcataat ggacgggaac cgtcgctatg ccaagaagtg ccaggtggag 300  
cggcaggaag gccactcaca gggcttcaac aagctagctg agactctgcg gtgggtgttg 360  
aacctgggca ttctagaggt gacaagtcta cgcattcagc attgagaact tcaaacgct 419

<210> 295  
<211> 419  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(419)  
<223> n = A,T,C or G

<400> 295  
aattcggcac gagaccgaga tctgacttga atgcagacaa aaaagcagaa attctaatta 60  
acaagacaca taagcagcag tttaataaac tcattactag ccaggctgtg catgttataa 120  
ctcattctaa aaatgcttca cacagggttc caagaacaac atctgccgtg aaatcgaatc 180  
aggaagatgt tgacaaagcc agttcttcta actcagcatg cgagaccggg tccgtttctg 240  
cggtgtttca gaagatcaaa ggcatactcc ctgttaaaat ggaaagtgcg gaatgtttgg 300  
aaatgaccta tgttcccaac attgatagga ttagccctga aaagaagggt gaaaaagaaa 360  
atgggacatc tatggaaaaa cnangagctg aaacnagaga ttatgantga gactttgaa 419

<210> 296  
<211> 415  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(415)  
<223> n = A,T,C or G

<400> 296  
aattcggcac gaggtgcccc cagccagggt gagccccctt ccagaaactg cctcaccacc 60  
cagcccttgt gtgatcctca tgtctcctgc ccaggacca catcctgagc ttgggtgccg 120  
acttcacctt gatctccctc ggcagcacca ggagaaagtg gagcggtgtg tagagggtgc 180  
acgtgaacct gacaagggct ggcggggact ggcagaccat ctgggtacc aagctgaggc 240  
tgtagaaatc atggcccaag gccagggtgtg agcctacaca ctgctgaggg actgggctat 300  
ccaagaagac agtggtgcca cccacaaggt gctagagaat gccctggttg ccatgggcca 360  
cgaaaatgtg gtccaagtcc tgggccccca agctgagggc tgnctgtggt gtgag 415

<210> 297  
<211> 413

<212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(413)  
 <223> n = A,T,C or G

<400> 297  
 cttctgctgg gactggccat tatctcaggg ettctgttgc attatagccc tgtgttctgc 60  
 tggaaagtag gaaacacttc caggggacaa aacatggatg atgtcatggg ttgtgtggat 120  
 tcagaagagg aagaggagga ggaggaggag gaagatgctg ccgtagggga acaggaggga 180  
 gcacgtgaga gagaggagt gccaaaagaa atacctaagc aggaccacat tcacagagtg 240  
 accgccttgg tgaatgggaa catagaacag atgggaaatg gattcaggat cttcnagatg 300  
 acagcagtca ggagcaaagt gacattgttc aagaagaaga caggcccant ctgaanaaga 360  
 agatggggcca tggttgtctt ctctgaaagc ttggagagct acatttgaag acg 413

<210> 298  
 <211> 409  
 <212> DNA  
 <213> Homo sapiens

<400> 298  
 gtcggcccag ctccggccat ttgcccggag gcctcctctg ggcccttcaa cttcctaagc 60  
 acctttcagg ttgggtgggc cgagatctcg cgagcgtccc cgacctctt cctttcgaga 120  
 gatccccctc cctccccctc ctagtctcct cggcaacggc acagatctcg cgagcttctc 180  
 ctacttctct agcgtgtgtg ctactgaag cgtactacgc cggatgtctt aagatatcgc 240  
 gagaccttta cctctggttt cttacacatc ctttagaaac tggaaatttag cgagaataca 300  
 ttctttcata ctgcctctc ctttggtttt ctgtctcaga gagatagtct gtcctaaata 360  
 tcccatgtag cccaggccac tgaattaaaa cggagcgtat tcgttctct 409

<210> 299  
 <211> 434  
 <212> DNA  
 <213> Homo sapiens

<400> 299  
 aattcggcac gaggggtgggt gtccctgagtt tggcctggga gtcagggtgag gcagtggagt 60  
 gtttgaagag aggggtgaggg gtatgggcga cccgcacaga cttgaatccc aggggtcctt 120  
 cagcagtgct gtgaaagggc tgctgctggc tgggactggc cttaacagaa gggaaatgca 180  
 ctatctcgtg tcctgcgac tgggtcagca gctcggctgt gtcattctggg atgcaggctc 240  
 ctttcctctt tctcctctc catttcatag ctccagggtt accactgcac agtaatggcc 300  
 agagcaagaa agggaccatt gtgcctgtg ccccttctc aggcaccagg tagactttcc 360  
 tctgtctcgt tgaccaggac taagtcaaag tatgtatcct tagtagggaa tgtgatgagc 420  
 ctaatggcat gggc 434

<210> 300  
 <211> 410  
 <212> DNA  
 <213> Homo sapiens

<400> 300  
 aagaaaggaa ccaaacaagg cgtgagtgtg ttggggaacc tcccagtgag agcaaacc 60  
 cttaacacac cagctgttgg gaacagctgc cctaaatcc aattaaacc tcattctcct 120  
 ggtgctgaac agtctacact ggcccaggaa gctaactgtg gagcgcgttg gagagctttg 180  
 gtaaacagaa gacactggaa gccactcgg tcagcagctg ggcattgagga tgtcaggggc 240



ctttggactt	gaggaaggac	agtccagggtg	catggaatcc	taatgggcct	catgcagaca	300
ctggaagcag	cccagccccc	tgcccaatac	cacagccctg	gggtgtcccc	tgacattcct	360
ggaggtccct	gggcaaattgc	atttcctgcc	tgggttctca	gggtaggaaa		410

<210> 301  
 <211> 410  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(410)  
 <223> n = A,T,C or G

<400> 301						
aattcggcac	gaggctacca	gagtttgatg	aaagtagccc	cactaaaaac	atctcacgtc	60
ctttattcta	attctgaccc	accaaaaagc	cttctaagtc	aatgacacaa	tgtctggagt	120
gcctctgtat	gttatgaaag	attgctctag	acatcctacc	cctgttcttt	agtcagatgt	180
gttttccagg	gtaacccaag	aatgacattt	tagcttgta	gtatcttga	agtgattagt	240
aagagctcag	tcctaaagac	tggtttggtg	tgagtaaaca	aataaagctg	gatttctgaa	300
acagcaaagc	tgagactcca	gaccagtaat	gctcaacctt	ctttctgtcg	agcatgcctg	360
gnagtaacag	tggctcacat	ggaagtaaag	gagtttgttt	tttgaagggg		410

<210> 302  
 <211> 413  
 <212> DNA  
 <213> Homo sapiens

<400> 302						
aattcggcac	gaggctggag	gcattcgaaa	gggactcccg	atgtggtggg	cggggctgaa	60
ccctgtggct	tctgagggtc	ctgccagcca	gagacttggt	tgagtctttg	aatggcttca	120
catgaacaaa	agagcatttc	tgtcaccttt	cctctagttt	tttccaccac	accaccagg	180
gagctgaggc	aagggttgtt	ctggtgctgt	ttccttaggt	cagctgaggc	tgtccattga	240
tgcccaggac	cgggttctgc	tgcttcacag	tgagtacggc	tttgtgcagg	ctcaccaagg	300
aaggggcggg	ccactcagca	gagcagggcc	acagaagagt	tttcctatct	tcctccctt	360
ctttattcca	tcctttcttc	ttttctctat	ttttctcact	cattcattta	ttc	413

<210> 303  
 <211> 410  
 <212> DNA  
 <213> Homo sapiens

<400> 303						
aattcggcac	gagggctcct	cctccagccg	cggggcaccc	ccttctccca	ccttgccctt	60
ccccagccc	tgagcccca	gagtgagcat	ggcccaggag	gagggtgga	gcctgcccga	120
ggtgcgggcg	cgggtcaggg	ccgcgcattg	catccccgac	ctggcccaaa	agctccattt	180
ctatgaccgc	tgggctccgg	actacgacca	ggatgtggcc	accctgctgt	accgtgcgcc	240
ccgcctcgca	gtggactgcc	tcacacaagc	ccttcagggc	ccgccccaca	gtgcctgat	300
cctggacgtg	gcctgtggca	caggcctagt	ggctgcccag	ggaccttcga	cgcgggtgctg	360
atagtcggtg	ccctcagtga	cggcaggtgc	cctgcaatgc	gataacctgac		410

<210> 304  
 <211> 413  
 <212> DNA  
 <213> Homo sapiens

<400> 304  
aattcggcac gaggatgttc acaaaagttt tatcaactca ctttgttttg atactgaagg 60  
tcatcatatg tattcaggag attgtacagg ggtgattgtt gtttggaata cctatgtcaa 120  
gattaatgat ttggaacatt cagtgcacca ctggactata aataaggaaa ttaaagaaac 180  
tgagtttaag ggaattccaa taagttattt ggagattcat cccaatggaa aacgtttgtt 240  
aatccatacc aaagacagta ctttgagaat tatggatctc cggatattag tagcaaggaa 300  
gtttgtagga gcagcaaatt atcgggagaa gattcatagt actttgactc catgtgggac 360  
ttttctgttt gctggaagtg aggatgggat agtgtatgtt tggaaccac aat 413

<210> 305  
<211> 410  
<212> DNA  
<213> Homo sapiens

<400> 305  
cccagctggc caaccctgac ataccctctg gccagccga gaacttcctg atgactcttg 60  
cctccattgg cggcctcgtc gctcgtctac aactctgggc cttcaagctg gactatgaca 120  
gcatggagcg ggaaattgct gagccactgt ttgacctgaa agtgggtatg gaacagctgg 180  
tacagaatgc caccttcctc tgcattcctg ctaccctcct agcgggggca acttcctcaa 240  
tggtctccag agcagcggct ttgagctgag ctacctggag aaggtgtcag aggtgaagga 300  
cacggtgccg tcgacagtca ctgctacacc atctctgctc cctagtgtc cagaccggc 360  
ctgagtcttc tgacctctat tcagaaatcc ctgccctgac ccgctgtgcc 410

<210> 306  
<211> 405  
<212> DNA  
<213> Homo sapiens

<400> 306  
aattcggcac gagcccagct aatttttttg tattttcagt agagatgggg gtttcaccat 60  
gtcggccagg ctgatctcaa actcctgacc tcagggtgac cacctgcctc agcctcccaa 120  
agcgttggga ttacaggcat gagccatcac acccagcgaa aagttttgtt tgaataaaca 180  
atatccgaaa gacaattagt ttcttcagat gtattttgaa attctcctaa agagctagt 240  
tttctattca ttttcacaat ttaaaaacag ctcttaacat tgctgaagtt gggagaactt 300  
tccatctctt cttaataaca gtgcaagatt ttgtaaatc ttttttgtgt ttaatgttta 360  
ataaaacgag tattaagctt aaattactga agtacctggg agaag 405

<210> 307  
<211> 403  
<212> DNA  
<213> Homo sapiens

<400> 307  
cctgagtgtg cagaatgaac aaacctgaaa gcctaagtac tatcttggtc cgtctagctc 60  
ccacacctag cttgagagta gcctctcata tcaatgcttc cctgctatcc tttcaaaact 120  
ctttttgatg ggataagtgg gcaaagatca tgccatcgtc tcaaagtcta acttcctttg 180  
acaagacagt ttctcccagg gatatcccc acaggcctag gccaaatctc tgactcactg 240  
caaaggtcca tgtacactga actgatagac atcaactatt ttattggaaa acacaattta 300  
tataacactc ttctcttggg ataatactct ttttgtggac aaataccgag ttggtcctct 360  
cttctcccag cacacccac cccctcccc atgactgtgt taa 403

<210> 308  
<211> 401  
<212> DNA  
<213> Homo sapiens

<400> 308  
aattcgccac gagattgccc tttaccccat gcccaatact gcaatggcac cttaggctgt 60  
gtgtgtgtca gacagaaaaa taaaacatca gatttttgtt aatttttgggt gatgagttag 120  
gtcaggggata gttattatatt tgagactgct attttttttt ctctttttta aaaacagatg 180  
gggctgggca caatggctca tacctgtaat cccagcactt tgggaggtg agggaggtgg 240  
attatttgag gccaggagtt caagaccacc ctggccacac ggtgaaaccc cgtctctact 300  
aaaaatacaa aaattagcca ggcgccgtgg tgcagccag taatcccagc tactcaggag 360  
gctgaggcac aagaatcacc tgaacccagg agacgaggct g 401

<210> 309  
<211> 404  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(404)  
<223> n = A,T,C or G

<400> 309  
cacactccag gctgagaaag agtaattagg aggcctgagg agggggccgag gaaaggctgt 60  
tgggggtgtgc tgggggttgg acccgagcgc cttccctca cctcaaccag agaagagcat 120  
ccggttgctt tttaaagctt ttagectgcc cttagcaagga caaagcatgt tagattagag 180  
atgcttctgc tgatcgacagg ggttcttatt tgaaaacatc tatgatgggg gaggtgtggg 240  
aggttttttt tattnncttt tnannaanca acgnttncct caattanatg gganatnngn 300  
ancccnngan ncttcntcat gaaagtcctt gaancattaa agncannttn nctgctggtg 360  
ntctttntgg caannantta tnttnncnnc ncnctcactn aaac 404

<210> 310  
<211> 405  
<212> DNA  
<213> Homo sapiens

<400> 310  
tttaaaagta aaatgtatatt taatgatgtt agaataagac taccattcta aatatcacct 60  
acttatgaat aacatgtaat aatttttaac attaatgatt ccataaattg tattattggg 120  
attagaatgt gctttatgac aggttagtgt ttcctctgag gcagaaaact cttttttgga 180  
gatatcttcc atcaagcagt actcgtgccc atatacaatc tctagtggct aggagaaata 240  
aataaaaggg ccataatggg ttgttctctt tcagacataa tttagtaggg gacaagaagt 300  
ctgttcttca gtgagtacac tagagattta ctctggtgac tgcttttgag ttatgggtga 360  
agtaaggat ggctttacca taaccttgat tcattcacc ttgat 405

<210> 311  
<211> 403  
<212> DNA  
<213> Homo sapiens

<400> 311  
ctggcccacc ccctcctgga cccatccttc ggccccagaa ccctggggcc aacctcagc 60  
tgcgaagcct cctcctcaac ccaccaccgc cgcagactgg ggtgccccca cccaggcct 120  
ccctccacca cctccagcca ccaggggctc ctgcgctgct gctccgccg caccagggcc 180  
tggggcagcc ccagttgggg cccccactcc tgcattcacc acctgccag tctggcccg 240  
cacaacttcc ccctcgggct ccaactgccag gtcagatgct gctgagcggg ggtccccggg 300  
gcccggtccc ccagccgggc ctgcagccca gcgtcatgga ggacgacatc ctcatggatc 360  
tcattctgaat cccaacacc caataaagtt cttttttaac acc 403

<210> 312  
 <211> 406  
 <212> DNA  
 <213> Homo sapiens

<400> 312  
 aattcggcac gagcatcatt cagcaagggtg gctggggtatg agctgtttata tattaaaaaat 60  
 attttcttga aaaaaaatta ggtttgttgt ttttcttaag agatgggttc ttgctgtgtt 120  
 acccgggctg gagtgcagtg tctaattgct ggcaactatca tggcaggctt cggtctcaaa 180  
 ctcttgggct caagtgatcc tgcctcaggt cctgaatagc caagagcaca ggctgggact 240  
 ataggtgccc accactgtgc cgtgctctat cccgtacttt ttgatatgta attattatta 300  
 ttattcagtt gggtcagttg tttataaatt ttccttatat gttctttgac ccttgaatta 360  
 cttagaaatg tatttttttaa tttctaaata cttacaggtt taaaaa 406

<210> 313  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<400> 313  
 ctgctgctct gaaagccttc cgaaggctgg tgaactccca ggggcagctg cgggtgcccg 60  
 tggtttttgt tacaaatgct gggaacatct tacaacacag caaagcccag gagctgtcag 120  
 ccctgctggg gtgcgaggtg gatgcagacc aagttatcct ctctcacagc cccatgaagc 180  
 tcttctccga gtaccatgag aagcggatgc tgggtgtctgg acaggggccc gtgatggaaa 240  
 atgccagggg actgggcttc cgaaatgtcg tcaccgtgga tgagctgcgg atggcctttc 300  
 ctctgcttga catgggtggac ctggagcggc ggctaaagac cacgcccctc ccgaggaatg 360  
 acttcccccg cattgaaggg gtgctcctcc taggggagcc g 401

<210> 314  
 <211> 421  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(421)  
 <223> n = A,T,C or G

<400> 314  
 caaaaaaaga aaagaaaaga gtagactggc cactgacaat actgggccta atggaactcc 60  
 ctctaccaaa tctgtcactg cactttgcct tcatcccttt tttccctaac agcagccacg 120  
 atgaaataaa gtgaagttgt aggacctcca tagttgggtt ataagcccag cccagcaac 180  
 aaagggtggg tggggtgact tctggggcac caacagctta taaaagtat acacttcact 240  
 atcctctttc cacaaggatt ttgctataat tcagttacca aaactagtat atgcctttat 300  
 ctgtgatcag aggcataaat tggaccatag gataagttct tttttagctg acattgggtt 360  
 tttttgggtt tggttttggg ttatttttgg ttgagnttag ttgataacat ttaaagagta 420  
 g 421

<210> 315  
 <211> 396  
 <212> DNA  
 <213> Homo sapiens

<400> 315  
 aagacttcag ctaaggccct tgatatttaa ttatgattag agacttttgg accttctgga 60  
 tcatgggtcat gtttctgttc tatgaaagtg acttaacttg aagcctggca gaaccaact 120

gttttctttc	tgttatcaaa	gctggtagtt	ttgaaatagc	accaataata	acccagggaa	180
atgtcatgta	atttttattt	tccattatga	caggtgtcta	atgcatgtca	gcacaaaagt	240
gtcatcactg	ctgtgtcatc	cctcttggtt	ttcactatgc	atctataatt	ttttaagttt	300
gcagggtttg	tggggggttt	tgtttgtttg	tttttaaact	ggaaaaacta	gccattttga	360
gagaaggaag	gttctaggct	atgagcatga	aggcct			396

<210> 316

<211> 397

<212> DNA

<213> Homo sapiens

<400> 316

ggtagctggg	actataggca	cacaccacca	cgcccggcta	attttttatg	ttttttgtag	60
agacaggggt	ttgccatggt	gcccaggctg	gtcttgaact	gctgggttca	agcgatctgt	120
tctgctcagc	ctcccaaagt	cctgtgatta	caggtgtgag	ctaccatgcc	tgggcccttt	180
ttacagattt	gaggatgggt	ttatatcacc	tcaatttctg	agaacctcaa	gctatgaact	240
tcgtttaagg	tagttccaag	tttaaggtag	aaccagttcc	aggttcctaa	ccccactccc	300
agatacctgg	cagaatcaaa	gatgaatctc	cggaggaggg	caccttcttc	ctaattttca	360
agggcaatga	gcaagtacag	gcagaaataa	caaagcg			397

<210> 317

<211> 398

<212> DNA

<213> Homo sapiens

<400> 317

tgcaagcacc	taaacagttt	gccaaaggaat	gtttctcctg	agtttgttcc	ttgtgaaggt	60
gaaggaggct	ttggtttgca	caagaagaaa	gacctactca	gtgataatgg	ttctgaatca	120
cttccgcatt	cagctgcata	cccctttctt	ggaaccttag	gaaataaacc	ctcacctaga	180
tgtacccctg	gtccttctga	atcaggatgc	atgcatataa	cctttcgcg	ttctaataaa	240
agacttggtt	taaaagtata	taaatgcaat	ccactaatgg	aaagtgaata	tgctgcattc	300
gagaaaagtc	aagggttgga	tgttcaggaa	cctccagtaa	aagatggagg	ggaccttagt	360
gactgcttgg	gctggccttc	cagcagtgca	accttatac			398

<210> 318

<211> 395

<212> DNA

<213> Homo sapiens

<400> 318

cttctgctgg	gactggccat	tatctcaggg	cttctgttgc	attatagccc	tgtgttctgc	60
tggaagtag	gaaacacttc	caggggacaa	aacatggatg	atgtcatggt	tttggtggat	120
tcagaagagg	aagaggagga	ggaggaggag	gaagatgctg	cagtagggga	acaggaggga	180
gcacgtgaga	gagaggagtt	gccaaaagaa	atacctaagc	aggaccacat	tcacagagtg	240
accgccttgg	tgaatgggaa	catagaacag	atgggaaatg	gattccagga	tcttcaagat	300
gacagcagtc	aggagcaaaag	tgacattggt	caagaagaag	acaggccagt	ctgaagaaga	360
ggatggtcca	tggttggtctt	gctctgaaag	cttga			395

<210> 319

<211> 394

<212> DNA

<213> Homo sapiens

<400> 319

cttgaatatg	acaatgttgg	agaagcctct	gagcaaaccg	tctccctcct	tttctctctc	60
tggttggaag	cgggtcggcc	ttacctgcag	acggtggacg	agtggatcgt	gcacgggcac	120

ctgtgggatg	gcgccaggga	gttcatcatc	cagagaaaca	aaaatgttcc	agttaatcac	180
agagacttct	ggtatgcaac	ttacacgtta	tatagcgtat	cagaaaagac	agaaaatgaa	240
gaaaaaatga	gtgataacgc	tagtgcgagt	tccggcagtg	accagggggc	ctccagcagg	300
caacacacca	tggtgtcctt	cctcaaacct	gtcctgaagc	agatcataat	ggctggcaag	360
tcgatgcagc	tgctgaagaa	cctgcagtgt	gcgg			394

<210> 320  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

<400> 320						
gacttagcga	aatgtcagca	gtctatactg	acacaccagc	ctcattttaca	aaaaggagat	60
attaaaacag	tgacagtatt	tttttttttaa	gctctttaca	aatccacgtt	ttatgtattt	120
tttaaatgaca	tgagctctcc	aggaaatgta	cctcatcccc	gcagttttcc	tccaagggga	180
ttcatttggg	agcaaaactgc	agtcactttc	acaagagtc	tctttgatgt	caggagggat	240
cacgaaacct	tgcaatgcc	tgaactggcc	atgggtatca	tcaaaagtcc	catgctaagt	300
gcataacttg	gagctcacta	taacctttgt	ggatttccct	aaccataaaa	ccttgccgct	360
atTTTTTTga	ggctTTTTtct	TTTTTTTTtt	ttt			393

<210> 321  
 <211> 417  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(417)  
 <223> n = A,T,C or G

<400> 321						
tttaaaacct	gaggtcagga	gttcgagacc	agcctggtaa	catggtgaaa	ccccgtctct	60
attaaaaata	gaaaaaatta	gccaggcatg	gtggcgggca	cctatagtcc	cagctactca	120
ggaggetgag	gtaggagaat	tgcttgaacc	caggagacag	aggctgcatt	gagccaagat	180
cacaccactg	cactccagcc	tgggcagcag	agcaagactc	catctcaaaa	aaaaaaanga	240
aaaagaaaan	gagggttaat	cnttcanttn	tggagggggg	atnaataaan	cttgtttgat	300
gttaaagggg	gtaaggaggg	agnggccttg	aaacacttgt	nttccaaact	ntcctggagg	360
tttccagnan	cnetactggt	cctaaanggg	tttcattttt	aacttcatct	gttttgg	417

<210> 322  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

<400> 322						
aattcggcac	gaggggagaa	gcctgagatc	tgacagagaag	tctgccaggc	ggcctgggac	60
taaaagctgc	agaagatggg	gcatgaggaa	gcagtgggca	ggcagaagga	gtgggcagggt	120
ggtctgctgc	tgccctcgggg	atgcagcttg	agctggactt	tctgcctggc	tccgtcttgt	180
caccgagttc	gcagcataaa	cgctcatccct	cagagacgct	gactcgatct	ctaataaaaag	240
ctatcagcct	gtcccccttt	actacgagac	ccctcttagc	tctgcagagc	atccatcaca	300
gttaggcatt	tttgcccttt	tttccatcca	cccacgcttc	cacccacca	ggacgtgagc	360
ttggacttca	tcttgtcatc	ccagcagcaa	ggg			393

<210> 323  
 <211> 393  
 <212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(393)

<223> n = A,T,C or G

<400> 323

```
gtgatccaaa agctgggtgga gcaccgcgtc atccccgagg gcttcgtcaa cagcgccgtc      60
atcaacgact accagcccgg cggctgcatc gtgtctcacg tggaccccat ccacatcttc      120
gagcgcccca tcgtgtccgt gtccttcttt agcgactctg cgctgtgctt cggctgcaag      180
ttccagttca agcctattcg ggtgtcggaa ccagtgcctt ccctgccggg gcgcagggga      240
agcgtgactg tgctcagtgg atatgctgct gatgaaatca ctactgcat acggcctcag      300
gacatcaagg agcgcggagc agtcatcatc ctgaggaaga caagattaga tgcaccccgg      360
ttggaacaaa aagtcctga cagctncgtg taa                                     393
```

<210> 324

<211> 383

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(383)

<223> n = A,T,C or G

<400> 324

```
tttgaatcta tgatctgttt ccttgaggga tttttgctaa tctgtatttc aatttcccag      60
gtcctagaat ttatgatattt tttttttaaa aggttagtac ctaacaggga gaggcagcct      120
cattgttttt agtttctagt tggggggaac tcagccctag ggttgatatac ttattaatcc      180
catttttaggg ctttgcacat atccattggt attcagggtt tttctctggg cccttccagt      240
ttattttctt ccttaactgg actcttttaa aaaaaaaaaa aaaaaaaaaa tttttngntt      300
tttttttngg nanaaagna aaaaaaangg cccctnnttt tttnggnncan ttnnnccntt      360
acaaaaggcc cnnncnanaga aac                                     383
```

<210> 325

<211> 406

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(406)

<223> n = A,T,C or G

<400> 325

```
aattcggcac gaggttggcc aggctagtct tgaatttctg acctcaagtg attcatctcc      60
caaagtgctg ggattacagg cgtgagccac cacggccggc taatttttgt attttttagt      120
agtgactggt ttcgcggtgt tgaccaggct gattnattaa ctgnntgatt ttggngaact      180
gcctgagagc ntttctatg ncnncngna ccaccncctt tgantaattc ttttttnaga      240
atcaagttgg ttgangcann aaattgcctt aatgcttntt ggaccacact gcttncctna      300
cngaaacnna aggaatattt ttttgcant nantgtcana ctntnaattt ctacngnaaa      360
aaccttttac ngntcggcaa catgganaat tctgtctntc cnaaaa                               406
```

<210> 326

<211> 407

<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(407)  
<223> n = A,T,C or G

<400> 326  
aattcggcac gaggaagcca tctgggagcc agcacagaaa tcttgacagc caagtactca 60  
gcaggccgga aagcagaaga tggaccctgg agggactgac tgtgtgtcag gcacaggggt 120  
agggactagg gataagatct ggtccccact cttaagctta gacccatgga ggagctctga 180  
atggtttgtac cctgttaagc ttaggcagag gattcaaagg gtgctgtgag gcaagggtggg 240  
aggttgggtg gggttatatta gtattctgaa gagtaataga accaataggg tgtgcgtgtg 300  
tgtgtgtacc atatgtaggt agagggtggg gttgntaagg aattagctta tgcagcatgg 360  
aggcccgaga antcccaaaa nctgcaccac ccatangttc caggttg 407

<210> 327  
<211> 407  
<212> DNA  
<213> Homo sapiens

<400> 327  
aattcggcac gaggaaggcc agaagtgtgc ctgaaagata gcggcggctg gtggccctgg 60  
gatcagccaa ggcttgccctg actgacagta ggaccagaa ggataaagag tttgctgaaa 120  
acactgaaaa cttgaaaacc aaaatgtcag aactaagact ctgctgtgac ctccttgttc 180  
agcaagtaga taaaacaaaa gaagtgacca caactgggtg gtccaattct gagggaggaa 240  
ttgatgtggg aacttttctg aaatcaacct gtaatacttt tctgaagacc ttggaagaat 300  
gcatgcagat tgcaaattgca gccttcacct ctgagctgct ctaccacact ccaccaggat 360  
caccacagct ggcatgctca agtcagcaag atgaaacatc tattatc 407

<210> 328  
<211> 410  
<212> DNA  
<213> Homo sapiens

<400> 328  
gcattgtatc tgcaatttgc tacacagtcc ctaagtcagc tatgggaagt agcctctatg 60  
ctctagaatc aggctctgat tttaaatcta gagggatgtc tgccgcgagt cgtgtgatat 120  
tcgggcctgg tgtgaccatg tccacctgtg atgtcatgct tattgatgac agcgagtatg 180  
aagaggaaga agagtttgag attgccttgg cagatgcctc tgacaatgtc cgcattggaa 240  
gggtggcgac agccaagggtg ctcattagtg gtcccaacga tgccctcgact gtgtccctgg 300  
gcaacacggc tttcactgtc agtgaggatg caggcacagt aaagattcca gttatccgcc 360  
atggtactga cctctctact ttgcacatct tctggtgtgc aacgcggccc 410

<210> 329  
<211> 412  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(412)  
<223> n = A,T,C or G

<400> 329



ctcgggtccg	cctggtgctg	ccgcggccgg	gagggactgg	attatgtcgg	ccccgtttga	60
ggagcggagt	ggggtggtac	cgtgcgggac	cccgtggggc	cagtgggtacc	agaccttgga	120
ggaggtgttc	attgaagttc	aggtgccgcc	aggcacgcgc	gcccaggata	tccagtgcgg	180
cctccagagc	cggcatgtgg	cgctgtcggg	gggcggccgc	gagatcctca	agggcaaact	240
ctttgattct	acaatagctg	atgaggggaa	atggactttg	gaggacagaa	aaatggttcg	300
tattgttctt	acaaagacaa	agagagatgc	agcaaattgt	tggactttct	tactataatc	360
tgaatatgca	gcggatcctt	gggtgcaaga	ccaaatgcan	agaaagctta	ct	412

<210> 330

<211> 408

<212> DNA

<213> Homo sapiens

<400> 330

aattcggcac	gagtgatcac	agatgatgga	attcgtcacc	tggggaatgg	ggcctgcgcc	60
catgaccagc	tggaggtgat	tgagctggac	aactgcccac	taatcacaga	tgcacccctg	120
gagcacttga	agagctgtca	tagccttgag	cggatagaac	tctatgactg	ccagcaaact	180
acacgggctg	gaatcaagag	actcaggacc	catttaccac	atattaaagt	ccacgcctac	240
ttcgcacctg	tactccacc	cccatcagta	gggggcagca	gacagcgctt	ctgcagatgc	300
tgcacatcc	tatgacaatg	gaggtggtca	accttgggca	actgagtatt	taatgacact	360
tctagagcta	ccgtggagtc	tctccagtgg	aagcaacccc	agtgttct		408

<210> 331

<211> 483

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(483)

<223> n = A,T,C or G

<400> 331

ttttgaactc	ccntatacan	ctactngggt	tttgannncc	natnncaacg	antcgcctagt	60
tgcanggaag	acacaaataa	gaaaactata	tagtatgcta	gaggggtgaca	tgctctaaga	120
aagaagataa	ggcaggaaag	aggattggga	ggcacagaaa	ttgagaggac	aatattacaa	180
aggtcacgga	agaccttgat	aagaaggag	gcaaggagg	gatcggttga	tgtagcttct	240
ccaggcagaa	agaagagtga	atgcataagt	attacaacag	gaacacccct	ggtgtgttca	300
agtaccatta	caggacagcc	ccactaanct	agttcagaga	cagaccagga	gagattaaga	360
ggaaatgggg	tcaaagcagg	aaagaagcca	gatectgtag	tgtaatgtag	gcacaggcag	420
gggcactgac	tttactcga	ctaaaatggg	atcccctggg	aaacttggag	cagaagggga	480
acc						483

<210> 332

<211> 455

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(455)

<223> n = A,T,C or G

<400> 332

ccccttgacc	ccncttgact	ttcgcggacc	atcgaacgct	gcctaaaaan	caaaaattag	60
ccgggcgtgg	actctatctc	aagacaaata	aaaaaataat	aaagacttgg	cttcaccaca	120

tagtcactgg	ggaactgtag	gcaaattgct	tttttgtgga	catccacaat	tatcccagta	180
ctgtttattg	aaaagctggt	gtcctttctc	cactgtactt	caatgccacc	ttggtcataa	240
agcaactgtc	ctttcctgtg	agggctctgtc	cctggactct	attctagttc	atggctttat	300
ttatctatcg	ttgtcccact	accatactgt	acctttttac	tgaaacttgg	tcttttttta	360
ttgagtgtct	tggctcttgc	atttccataa	gaactttaca	atcagcctct	caagagccac	420
caaaaaaccc	caccataatc	accccacttt	ttgag			455

<210> 333

<211> 465

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(465)

<223> n = A,T,C or G

<400> 333

tttaaacacc	tcttgnnttt	tctgnaggat	ncntcgnat	ccnattcggc	acgagggagg	60
ctgaggcagg	agaatcactt	gccacgatgc	ccggctaatt	tttgtatttt	tagtagaggc	120
agggttttctc	catttttggt	aggttgtct	cgaactcttg	accacagatg	atccgcccgc	180
ctcagcctcc	caaagtgtcg	ggattacaga	catgagccac	tgcacccagc	ctgaaaattc	240
aatttttatgc	aatccactca	ctcggaaactc	aaaatgctaa	atataatatta	ttatatgctt	300
taagttgctt	tatgcattgc	ttatacatgg	atgcatataa	ttgaatggag	ttacaaacct	360
tgcataattat	tcttgatagg	taatgtaaag	atgttccaaa	gtggttttca	tcatatgtca	420
ctttcaaatt	acataatttt	agaagccaat	cactgaataa	aatgt		465

<210> 334

<211> 426

<212> DNA

<213> Homo sapiens

<400> 334

aattcggcac	gaggcaaggt	caaaaattta	catcaggtat	ctgaatgtgt	agcatataca	60
actgagtgtt	gaaagaagac	aaaatcgttt	tcatcacgaa	gaatatgtgc	tcagtaagaa	120
tcagaatggt	caattgtgtg	aaggtgggag	atgggaagat	tggtattatg	gcctggatcc	180
agaaatcagt	cttcactat	aggaaatggg	aatttaaaga	tgatcagaag	acagttggga	240
gcagagttag	aataagaacc	ctcaactgct	gtctcacctt	tcagatcacg	aagaagtttt	300
ttacaatgag	cagaacactc	aacctgaaag	cagaatggat	tgagtcactg	cagcgtggca	360
gtggaatggg	gtttgatgtt	ggcaaaggaa	acatgtactt	ctagactggc	agttttccct	420
taattt						426

<210> 335

<211> 426

<212> DNA

<213> Homo sapiens

<400> 335

aattcggcac	gaggcgaggg	gcaggctgtg	tccaacctct	cggggcaggg	caagcacggg	60
aagaagcagg	tggacccgct	caccatctac	ggcatccggg	gtcacctttt	ctataaattt	120
ggcatcacag	aatccgactg	gtaccgaatc	aagcagagca	ttgactccaa	gtgccgcacg	180
gcgtggcggc	gcaagcagcg	gggccagagc	ctggcgggtca	agagcttctc	gcgggagacg	240
cccaactcgt	cctcctactg	cccttcagag	ccgatgatga	gcacccacc	tcctgccagc	300
gagctcccgc	agcgacatcc	aggttcaagt	acgtgcagct	ggcgccagtg	agtgaccaca	360
cggtcggggc	acagacgggc	gaagccctgc	agcccacgct	caagccggag	atgcactcga	420
gcaccg						426

<210> 336  
 <211> 426  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(426)  
 <223> n = A,T,C or G

<400> 336  
 aattcggcac gagacagctt tagaaataga taatgcgggt gtggcacaata gcctaattga 60  
 catgagaggc atagagacag tgctactaat caaaaataat tctgtagctc gtgcagtaat 120  
 gcagtcctcaa aagccaccca aaaattgtag agaagctttt actgctgatg gtgatcaagt 180  
 ttttgagga cgttattatt catctgaaaa tacaagacct aagttcctaa gcagagatgt 240  
 ggattctgaa ataagtgact tggagaatga ggttgaaaaa aagacggccc agatattaaa 300  
 tcttcagcaa catttatctg cccttgaaaa agatattaaa cacaatgagg aacttcttaa 360  
 aaggngccaa ctacnttatt aagaactaaa gatgaaaata agaanaata tttctgaaat 420  
 tcggga 426

<210> 337  
 <211> 414  
 <212> DNA  
 <213> Homo sapiens

<400> 337  
 aattcggcac gagatacctt agagcaaaat ctattagtct ctctcagttt atcaatttaa 60  
 atggcttttag gcttataggg ggtgtaaaact ttaagaatat aattctccca ttcaagttta 120  
 cagcaaacat ctagccacct tcaaaacaaa gaagatacag accatcattt agcaatacta 180  
 atacatgatt ttccttgagg atggcagggt tgagaatcct ttagcaacag gacatacttc 240  
 ccctaaatta cagtgaatta tttataacga gataaagctt tcagggtacaa gctgaaggcg 300  
 ggggtgtctaa caactaaaaa ctatcactaa atctcaaaga gaaagttctt gcaaaatatg 360  
 taaagttcac aagggtgcaga cattttcctt cttaggctt ttatctaagg aagg 414

<210> 338  
 <211> 419  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(419)  
 <223> n = A,T,C or G

<400> 338  
 aattcggcac gagaaaggaa ctaaatagtc tcaaaggaca ttatcatcca agttatgata 60  
 gtgatttcgc tttctttaaa aaaaaaatta ttacagatag agtttcttga tgttgcccag 120  
 gctggcctca aactcctggg ctcaagcagt cctccagcct cagcctccc agtagctggg 180  
 actatgagaa tatgccacca tgcccagctt tattttgctt tctaagtgc cttttttag 240  
 ttcctgcaaa gcataagcat gccttcactt gtggtacctt ttccaatatt ttatttatct 300  
 cacatcacta ataagataaa tttatacagc cactgctctg tgccagacat tatttaagaa 360  
 gttatttcac gcattatctc atctgccttc caaaacaact cttaaagg natcacctc 419

<210> 339  
 <211> 409  
 <212> DNA

<213> Homo sapiens

<400> 339

aattcggcac	gagcttgagc	ccaggagcag	aagggtgcag	tgagccaaga	gcctgccact	60
gcactccagc	ccaggtgaca	gtgcgagact	ctgtttcaaa	aagcaaaaca	aaaccatctg	120
ggtgacttta	aagataatcc	agttctggcc	aggcacgatg	gctcacgcct	gtcatcccaa	180
agtgctgaaa	ttacaagtgt	gagtcaccac	gccaggcccc	tctgctcttt	agatgtgtag	240
tagtttgatt	tttttgcct	ctagtgatgc	tgcagctcag	agacaaaggc	agaatcttta	300
tcctgatggg	caacaccgtg	tcatctggct	tctgtgacct	cattgggttc	ttgactctgg	360
aacagggagg	gctgtgtcaa	aggggtctcc	ttcccctgtg	gctctcatt		409

<210> 340

<211> 419

<212> DNA

<213> Homo sapiens

<400> 340

aattcggcac	gaggaggaag	atgccttctt	ggcctgataa	tgtgacagcc	acctgctgtc	60
actcattttt	ttcagtgtct	tgaagatgac	cagaacctgg	tcatcaggtc	tccttttaaaa	120
agaacaaaac	acagacatgc	ataaaatcat	acagcataaa	aggatgatgt	cattctcagg	180
gagacagggc	agcatgtgcc	tgtgttcctc	atctactctt	gaaggcatca	ggctctctct	240
atttcacact	gccagttgct	acctaaaaga	gggaacttct	cgaggagaga	tggactttca	300
tgctcagtga	cttagaaaact	gtgttagagc	tgactgctat	caaataagca	taagactgct	360
ataaataaaa	tagataaata	tcaaacaagc	acaaataaat	aagcaaatac	ataagcaat	419

<210> 341

<211> 420

<212> DNA

<213> Homo sapiens

<400> 341

aattcggcac	gagctcaagt	ttcttgagtt	gctgcttggt	aacacccagc	ttttaactga	60
gtgtttgctc	ctgatggttt	aggagatttt	catgttgat	cacactgtca	agttttatct	120
tgtcttttta	tccctccgtg	gatgtgagtt	tgaacaagc	acggtacagt	aatcctgcct	180
gatagagtag	tctggaatga	gaattacttt	ttgggtgaga	gagttctcca	ttttaatggt	240
tctaaagtth	ttcatatgaa	cttggcattg	gaaaaggag	gtaaagaaaa	aggacgttta	300
ctaaaagcag	tgtctactct	tcccctttgt	gagtgtttat	tcatgggctaa	tgaaaaaaga	360
gaaggactct	tgggttttgt	gttgccatgt	taagcatgga	gagggatgct	tgacagcatg	420

<210> 342

<211> 409

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(409)

<223> n = A,T,C or G

<400> 342

aattcggcac	gagatagtca	cctacattca	gagaactcag	gacataaaat	cagatgctgg	60
tatgcagcca	agttcaggct	cgtacagggt	gaagcagtga	aggtcattcc	gtagggaggg	120
agaagtaagt	agatttcata	tggaaagaag	catagatgag	aatgcagct	ctggagagag	180
ggcagccatc	cacatgcaga	gcaaaaatct	ggatgcctaa	agactttcca	gggtgtggcc	240
tgtttggagt	tcttggagt	gtctagtacc	ctttcagtta	actcngtttt	tatgtaagct	300
ttctgttatt	ttcagccgaa	ataactttga	gttagactta	atacagagct	ctgcacagca	360

cttgtaaaat ttgaaattta gaatcatctt gtcagggatc atggctctt

409

<210> 343

<211> 424

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(424)

<223> n = A,T,C or G

<400> 343

aattcggcac	gaggaattcc	cttagcattt	tgtttctcgc	tctataaaga	cctataatgt	60
aataacatct	ttatagtatt	tgagaactta	ttttctcctc	taaatttata	agcaatgtta	120
aggtaagccc	ttcatctttg	cttatcctct	aataccaaac	aaacttccat	aaaaatagaa	180
ggatctcaaa	aactaaattg	aaaaagcagt	ctagttgaaa	aatagagggtg	ctaaagtaag	240
ttgatggctc	ttaaatgatg	ccaggacatt	cttagagtag	tgatggctct	ttgggtttgg	300
tggttaactta	gaagggaaaa	aaaaaatctg	caggaccaca	tgaccgctag	ggaaacaggc	360
atcaccaacc	attccagaaa	gctgctttga	acaagcctta	tataanaaag	agagaaagca	420
cttt						424

<210> 344

<211> 411

<212> DNA

<213> Homo sapiens

<400> 344

aattcggcac	gaggagaaga	tgaggctgca	gatgaaaacc	cagagtctca	agagatgctg	60
gaggagcaac	tggtgaggat	gttaacccga	gaagtcatgg	acctaatac	ggtttgctgt	120
gtttcaaaga	agggtgctga	ccacagtagt	gctccccag	cagatggaga	cgatgaagaa	180
atgatggcca	cagaggtcac	cccctcagct	atggcagagc	ttacagacct	gggcaaattg	240
ctgatgaagc	atgaggatgt	ttgtacagcg	ctattaatta	cagccttcaa	ttccctggcc	300
tggaaagata	ctctgtcctg	ccagaggaca	acctcacagc	tctgctggcc	tctcctcaaa	360
caagtgtgtg	caggacact	gctcgcagat	gcagttacgt	ggcttttcac	c	411

<210> 345

<211> 416

<212> DNA

<213> Homo sapiens

<400> 345

aattcggcac	gaggcctgct	ggcctactca	tgtgccattc	tcagtgataa	gtcctttgca	60
tgtgtcacac	aactaatgat	ggagagtcgg	gattcagacc	ccaggaattt	gacttaagat	120
ctcatgttct	taaccacttt	cccatactgg	ctccttcatg	gcaaaaaggc	tcatgacaag	180
gaaaaaaaacc	tatcacaaaag	tctgtgtacc	aagatgcaag	cattgtactt	ctgtgtgtaa	240
agagacagta	tctgcacacc	ttacttagat	ccttttccct	cttactctga	gacacaatat	300
caacaaaatt	ggtaatcttt	atatcccatg	tctcagtatg	tgaagagtat	taactaggag	360
aatttcaagt	agaggccagc	tggttaactac	cagctacatg	aaaggctgat	ggagag	416

<210> 346

<211> 415

<212> DNA

<213> Homo sapiens

<400> 346

aattcggcac	gagaacaaaag	gaagcaggaa	aatgctctta	aacccaaagg	ggcttcactg	60
aagagcccac	ttccaagtca	ataaaaagca	actcctgcct	cccttctctca	ccctgtctct	120
ggattttcttt	tctatcacct	agatgcttca	tccagccaga	agatagcctt	cacgttcccc	180
atctgtcttc	agagcaaaaag	agctgggaca	ccaagaacaa	gctgttagat	cactgcctgg	240
gaggcttggc	ttagtactct	catctctggg	tccattccag	ttcagctaag	tcttgcttta	300
aaattttttac	ctcctagctg	ggtgcggtgg	ctcacgcctg	taatcccagc	actttgggag	360
gctgaggcgg	gcagatcaca	agatcaggag	ttcgagacca	gcctggccaa	cccag	415

<210> 347

<211> 406

<212> DNA

<213> Homo sapiens

<400> 347

aattcggcac	gaggagattt	tgtactat	ctgtatttct	ttctttctcag	aacaaccagt	60
gtcaccaggt	atgagggcag	agtttttagct	tgtttgctga	gccccattct	tgaagctcat	120
ttattttattc	acctatctgt	ccatcaatcc	aacaaatata	ctgaatgctg	ctatgtgcc	180
ggtactggca	ctgtttctagg	tactggggca	atgacagtta	agataatacc	caatgaccct	240
gctctgtacc	cttaagagca	gactcagttg	ggaatgagtt	atccaaatat	aggggtgtaca	300
tgtagtcagg	agagagcctc	atacagcttt	gcctttggca	gaatccttca	aacctctttg	360
tcttctact	tcttgatatt	acaaatcatg	agcctttcac	atgcat		406

<210> 348

<211> 392

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(392)

<223> n = A,T,C or G

<400> 348

ctctactaaa	aatacaaaaa	ttagctgggc	gtgggtggcac	acacctgtaa	tcccagttac	60
ttgggaggct	gaggcacaag	aatcgcttga	acccgggagg	cggagggtgc	agtttagccaa	120
gatcgccctg	ctgcactcca	gcctgggcaa	cagaggggaga	ctctgtctcc	aaaaacaaaa	180
acaaaaactg	ttagtgaagg	ttccctggga	cttttgatat	tttaaaaatt	gttcttatga	240
ctagtagata	aattcattgc	cataatgagg	ctagctccca	gataaacagt	gtattttctt	300
cttttttttt	ttnggggngg	ggccaaanct	ttaanctact	tttccagtag	ttngccantt	360
tntccnaggn	agttgggctg	ctntttcaga	aa			392

<210> 349

<211> 396

<212> DNA

<213> Homo sapiens

<400> 349

aaaaaaacaa	aaaagccccc	catttataaa	taaaccttaa	ccacacacac	acaaagtttg	60
ttgaatgagt	atatatatac	cactgatgaa	aggaagggtga	aatgtttgcc	atacatat	120
ttatgatcgt	ttacctgaaa	ttaacctttt	aaattacata	accaattgtt	ctaaatcaca	180
ttagataaaa	gggtttctac	tgcataatat	ccataatata	taaagagctc	ctaaagatca	240
ataagagaaa	ggtccacta	caaaaagcaa	aaagtggcag	aagattatac	atgggcattt	300
cccaggaaaa	gaagtactgg	tgaataaaaa	agaaaagatg	ttcaaattga	ctctgggtat	360
tagggaaatg	taaaccggtt	ttcaccagac	agattg			396

<210> 350

<211> 402  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(402)  
 <223> n = A,T,C or G

<400> 350  
 aattcggcac gagcctcacc ttacctcaag tgttctcctg aggaccctta ggtcagacag 60  
 agaagctttc tctttctgat gggaagggtc aaagtggaaa tctcttatct ctagtgtgaa 120  
 atgattttct gctttttcat actccctgcc ctctttcttt tccttaataa atcttccatg 180  
 tttaagatgt tggcctgaag atctgtccca ttcataccat gcaccagctg ggactgtccc 240  
 tatctgatca gaggggagat taaagaatca atgttcccag gggaaagggc cttaaattgt 300  
 ttggcttttc aatggctgac actgtctnca actctccctt ctccttnttc tcaagcttct 360  
 atgcacccta ctttccancc aggatgggtg gcactgatcc ca 402

<210> 351  
 <211> 406  
 <212> DNA  
 <213> Homo sapiens

<400> 351  
 aattcggcac gaggttccct ttggggggaa gatgttggac ctttattatt tgtggtaacc 60  
 agccgaggct ggttgtcagg acagcagggtg agccacttta gggaagaaag tgcaggggtg 120  
 ggtggatgcc cagattacca aggccagcca cctgatggg gttaggtctg gttatctgtg 180  
 ttcaagaagc aaatcccacc ccagccccag cactagctct ctatgtatgt attttccctg 240  
 tacaatgttt tataaaagag atcattaatt tatctgctat gttaaggctc gaggggtggg 300  
 gcgtagactc tcagctgtat attgctctgg ggtgggcagg gaaggctgag tctcacttga 360  
 cttggaagat aaacaggcca gtttggactg gcctccactc cgtggc 406

<210> 352  
 <211> 403  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(403)  
 <223> n = A,T,C or G

<400> 352  
 aattcggcac gagatctcta ttgatgcttt taatgcattg cctgccttca ggttttcttc 60  
 ttaccccacc cctcaataag atttggtgaa ttgtaattct agtaaaacat gtcataccat 120  
 tggttttcct aaattatcaa ctttctttca ttaaaaaaaa aaaagcccan catggtttga 180  
 ctggatanac ncccataatt tattatgaan anaaatttcc atgttngttt ntgttcttaa 240  
 accaaagnac gaggtccntg ggaattnaag nanctnccca ttatntatta ttanactgca 300  
 ngttcctgca anaactgttt agttnacagc cccgtttcnc cagnngagtt ntgggcagnn 360  
 attgctgcn aaggcatnac tgcgttngct nactctanac ttg 403

<210> 353  
 <211> 399  
 <212> DNA  
 <213> Homo sapiens

```

<400> 353
aattcggcac gagaattcac agtttgcata aactgtaaca tttcatacta tgattcaaag      60
tactacttta aaaaataaagg gccactcagc agtaacttta acaattggga ttccaccaca      120
gaagagctct tgacttctgt gtgtacattc tttcacagag tgaatccttt cccagtttca      180
agtatccctt tctatctctc actctgtagt gagttaagaa aggagaaaaa aaagacctcc      240
ccatttttcc tttcgtgagc acaacgacga ccacaaagcc attcctcctc cccgctgtgc      300
aatcgaaaat gaaaaggctg ggtggatgaa tagagtcccc aggggttcctt ttcttctggt      360
agtgtcctaaa ggttcacttt caacctggcg cagactttt      399

```

```

<210> 354
<211> 432
<212> DNA
<213> Homo sapiens

```

```

<400> 354
aattcggcac gaggtatagt cagtgatggg gaatagtcca gaaaggctga aacacagcat      60
gtgatgtgag tcaaggtagt tgatgcccaa ctgtgaaggg cegttctaata ctagcatgga      120
ggtagacagt gtttccttaa tatggctgca tatcagaatt acctagggtca ggacgaggca      180
tgagatgctt actttaatat gccctgccgc agatcttcca aaccagaatc ttaatcctgg      240
agtctaggaa tctttatttt tcacacaact catccaagtg gttctgataa aatcagtcca      300
gcacttttag aaccactga taacagactt attcctggag acagcatttg aggaggaatt      360
gaagattttt ctaatgaaaa gaaaaagggg cecatgaaca gatgttgcag tgtcctgtgc      420
cagggatttc at      432

```

```

<210> 355
<211> 416
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(416)
<223> n = A,T,C or G

```

```

<400> 355
aattcggcac gaggtgacgg tgagtgtctc cttgtccttg tccctgggag ataaaaagtc      60
tggtttctac agctgatgtt cccaaagtgc agtggacaaa aataaccaac tgggcttccc      120
agtgggagggt acccttcccc catccagagg ggctttgaga cgtgtccatc actcctctaa      180
ccagtcaccc tttctcttta gttctggtct tagggaagcc atactgaaga gctgccctcg      240
gtcgtgagcc ctaatgagcc catgtctctt ctgagagtgg attacagtct ttgtcctgtg      300
caacccccct ccctttctgt ccccttagg cagaggtgca gcctcagtgt ggaagagccg      360
ngggattctc ttcaggcact gaaaaccac atggagtgaa ggctgcacca gggggc      416

```

```

<210> 356
<211> 417
<212> DNA
<213> Homo sapiens

```

```

<400> 356
ctttatttgt gtgggctact gggaacgtta tttggaaaca ttcctgtgga aaaccactct      60
tctcttcccc acaatgttgc tcacagtata tttgtattgg ctgtgtagat gggaattttac      120
tctgctttac tcactttgga gaacaggttt ggcagttctc taccagtgga ccaatctttt      180
catccccggt tacctcacca tcagagcaaa aaatatcttt tggttcccat gattgcttta      240
tctactgttg taacatgaaa ggtcacctgc agtggaaatt tgaaaactact tcaagggctc      300
atgcaacacc gtttgccttc cataactaca atggcagcaa tgaaatgttg ctggcagcag      360
catctactga tgggaaagtg tggatcttgg aatctcagag tggacaattg caaagtg      417

```



<210> 357  
 <211> 378  
 <212> DNA  
 <213> Homo sapiens

<400> 357  
 aaactgtcct actgtatgta gtgacctact tgaagttccc cttagggcaa catatataaa 60  
 aggtgaaaag tattatgatt tgtgatacat acacaggctt atttagtttg aagtgtttgt 120  
 actgttttact ttgacctatt atctgtcata ctttttaggt gtgataattc aacttaattt 180  
 tctttaccaa gatccacaaa ccccaaataa ttactttttc tcttccatt tctccagg 240  
 catacacaaa ttgcagtgtg ttctaaggca ttacaaagta acaaaataat actgttagat 300  
 ttataaaatg agtcctaata agacatttca gggacatgtt gaagcatcat cagttgtaag 360  
 ttagcactat taaaggat 378

<210> 358  
 <211> 384  
 <212> DNA  
 <213> Homo sapiens

<400> 358  
 ggtcttctct tccatttttt aaaaaagaat tttgacctac accaagcaag gcagagacca 60  
 gagtgcagtc cccttgggga gcagtctgtg gttttgataa tcaccacctt gggatgaaca 120  
 tggctgggtga gctgcagagc agttgatttg acttttgggg atggttctag gctggatgtg 180  
 atacagggca ggttttgtct cttagagaaag ttctcatgac cttcagggtc aatgagattc 240  
 agatcatcac tttggtttgg tttgaaattt ctttgtttat ccagtgaatt acaagtagaa 300  
 taaagatctg gttctaaatt gtcttttggg ggtgaagtgc catagaccat ttcggaccat 360  
 ttctatgatg taccagcagc cccc 384

<210> 359  
 <211> 404  
 <212> DNA  
 <213> Homo sapiens

<400> 359  
 aattcggcac gaggagagaa ggcaaacaag gatgcagaac agaaagaaga cttttcagga 60  
 atgaatggtg accttgaaga ggaaggaggt agggaggcta cagatgcccc tgagcaagtc 120  
 gaggagattc tggatcacag tgagcagcag gcacgcccctg ctcgtgtaaa tggaggcacc 180  
 gatgaggaga atggtgagga gctgcagcag gttaataatg agcttcaact ggtcctagac 240  
 aaggaaagaa agtctcaagg agctggcagt ggacaagatg aggctgatgt agaccctcaa 300  
 agaccaccaa ggccagaagt aaaaattcca gtccagaaga aaatgaaaac aaccaacaaa 360  
 acaaggacta tgctgccgtg gcttagaaga tttttaaaaa gaga 404

<210> 360  
 <211> 279  
 <212> DNA  
 <213> Homo sapiens

<400> 360  
 aattcggcac gagtgcacct gctttgtcat ctgatgttaa caggagtctg taatattcat 60  
 gccaccaccc aagagtccca ttacaaaagg agcagacttc tggctctctt tagccttttt 120  
 tgtttcttcc aacaaaaatc caggctggag tggattaggg caatctcagc tcaactgaaac 180  
 ctctgcctcc caggctcaag tgattccctt gcttcagcct ccgagtagct gggattacag 240  
 gcactccacc accacatctg gctaattttt tttttttttt 279

<210> 361  
 <211> 199

<212> DNA  
 <213> Homo sapiens

<400> 361  
 aattcggcac gaggtcattt atataaacat tttaaaaatg acaggaacag tctaattacg 60  
 ttaagtcaat taagtttttt ttttgcttga ttgtttaatg ctcttatgaa aaacacatat 120  
 ttgtaaaaga aattatttgc ctagaaaaat ttaccatgca atatatttca tcatattgga 180  
 gttccttttt ttttttttt 199

<210> 362  
 <211> 475  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(475)  
 <223> n = A,T,C or G

<400> 362  
 cctcattggn acctnagacc gctcttggac tttatgcagg anccctcgat tcgaattcgg 60  
 cacgagactg ccttacaacc ttattcctct tcattttgtc ttctcactta cctgcagaaa 120  
 cccagtttat ttttgttctc cctttaccac accagccttg taactgttat gaatgaccct 180  
 caatctcact ggaatctgaa tcaactcagga attcaagcaa actggatggt ttaaccactg 240  
 ttcagctttc ttatggaatg acagagaact tgtaaagata aaacaccagt ttgcaggaag 300  
 aaaggaagag aatggaaatt gcttctggaa aatactagtt ttacaatatg ttttgtttgc 360  
 tgctctctta aataaactta atcctataaa cattttttta gaactagcca ttaagactgn 420  
 taagtcttca attataaagg aataaaatgg ttttaaggagg attatttgcc ttgct 475

<210> 363  
 <211> 438  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(438)  
 <223> n = A,T,C or G

<400> 363  
 ctcgggtaac tgaaaccaca gaaagcaaaa catggataaa gtgggggtcta ctgtagggggc 60  
 aatgttttaa agcattttgaa ttgctcttgt atgccttact ttgagattaa ttgtataagt 120  
 tttcagaatt attgatcata tcgaaattta aatttgatgt gaaggaagta tcttaggaga 180  
 agctaaaaaa tacataaatg aacgaagact ggaagaatct tcaagatggt aaaaactcat 240  
 ataaccacag aaataaaaaac tccaattggt aaagtcatag taaagagaag gaagcaaadc 300  
 ataataggtc aaaatataaa gataaaatga cactgaaag gataataaag attgtgaaaa 360  
 tcaggacact ctcaaacaga aaccaaagc ggaagagaga tgaaagcnag agcaaagtnn 420  
 gacacaattt gtacgatc 438

<210> 364  
 <211> 435  
 <212> DNA  
 <213> Homo sapiens

<400> 364  
 aattcggcac gaggagctct ctttctgccc agagtgtggt acatttattt aaaacaagtt 60

tttgtgtgtc	ttatacgtgt	ttaaaatata	tacagaactc	tgattagggg	gtgttgtgaa	120
catctgggtt	ctgagaatga	attttaggtt	caatagcaaa	agtcattgtg	gccgctcctt	180
taggaaagtc	atttttctcc	tatgagtagt	catccccggt	agacttgact	gaaatcctgt	240
gttttaggag	gatttggggg	gtgcccctgt	cctcccttcc	tctcattaca	ttgggtcaaa	300
ttagtttttg	gttttttttt	tcccacaagc	ttcgcttttc	taagaagtac	acatttggcc	360
caaattcacc	gggataagtg	agaacagcca	gaagcataaa	atgtgatgaa	ggtttctcct	420
gggaccttat	tttac					435

<210> 365

<211> 423

<212> DNA

<213> Homo sapiens

<400> 365

aattcggcac	gaggcaagat	acaggcttgg	accattagct	ggaaatatgg	tgagaacaga	60
cacagacacc	ctggggtcgt	cagctagcga	taccagcatc	agttttcccc	agctgagaag	120
gcaaggaagg	agcagggaca	gtcctgagag	ctgtggacac	gccacacccg	ctgttggggc	180
tggttaatgc	cattgaacac	ctgagcaagg	gcaggcccag	ggaggctgaa	taagtctaga	240
ttcccatggt	gagtaattaa	aagaactgac	ttttaccaga	tgaaggccag	tttcaaagtt	300
gggctgcttc	tgtgttacca	ctgccctttt	gctgtggtct	gaatgtttgc	gtccccacaa	360
aattcatatg	ttgaaaccta	acccccagat	gatggaatta	agagatgagg	cctttggcaa	420
gtg						423

<210> 366

<211> 420

<212> DNA

<213> Homo sapiens

<400> 366

aattcggcac	gagctgggat	gatgatactg	aatagtctgg	aatgtggcat	tctttgtctc	60
aaagagagtc	tttaaaaaaa	tctgtgttct	gatggtagag	ttccaatttt	ggcattttgc	120
cttctgtgat	aatagataga	ctttgactct	aggtaaat	gtgggtggagc	aaaagttcgt	180
ttggggttgt	tccacttacc	ccttactctt	tgccctccct	agtcattgtt	gtcctctttt	240
ctttctttat	aggcaatggc	ctgatactca	tagtcaggaa	ttaataaata	gttatggttt	300
aaaatattat	tcttgagagt	attttcatct	ttgtctggga	acaaacatgc	ttatttgtac	360
ttgagttctt	gccttctacc	atcatcactg	gaaaaacatc	tctgggtagt	cactgcctcc	420

<210> 367

<211> 406

<212> DNA

<213> Homo sapiens

<400> 367

aattcggcac	gagagaagat	agaacaattg	gatgagttac	agaaagcaag	caattacata	60
tttgcattaa	agtatatatt	ctttctattt	aacctagact	aagaactatg	ctaattgatat	120
atttcaaata	ataaataaaa	tatcatctat	agcctgagag	agaggaaaaa	gaaagaggtt	180
agaaggatgg	aatacttgag	ggagaaggga	aagtgagcat	agagttggtc	aaaggcaatg	240
agatactgct	cgtgggtcat	gaaggtaaca	tcacgccctc	aataccaatg	ccctataaca	300
gaagtccatt	taaaggactt	aaccagaaaa	aattgagaaa	tgtcaagaat	cttacagagc	360
ttctgtttgt	atactgagaa	tcagggaatg	atcagacaag	tgtatc		406

<210> 368

<211> 408

<212> DNA

<213> Homo sapiens

```

<400> 368
aattcggcac gaggggagaa tcctcaaaaa tagggatata agatatttct tcgctttcag      60
aaaaaacttt tcaaacactt gaatgccaac acaagagaag tagggagggtg aggagatcta      120
aaggttgtga ttgctgtggg gaaaaatcac aacctcagga aaagtcactc attgggttaa      180
agaatacaga aaataatgac gtagagatta gtgaaacaaa aaaggcagat gtgcaagcac      240
ctgtaagccc atcagaaact tctcaagcta atccatattc tgaaggacaa tttttagatg      300
aacatcatag tgtgaatttt catattgggtc tcaaagagga taatgatact attaatgatt      360
cattaattgt ttctgaaacc aaatcaaaaag aaaacactat gcaagaat                    408

```

```

<210> 369
<211> 399
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(399)
<223> n = A,T,C or G

```

```

<400> 369
aattcggcac gagacaagac tctgtctcaa aacaaaacaa aacaaaaaac tgggaagtta      60
tgagctaata cataaacctt cattgcacag tcttttaaaa tttgttggtt ctactttctg      120
aaaatgaaaa tattaaatcc ttcttgaaaa cagaaaatat caaaaactta actgcattag      180
acagagatat atgttaactt tgagtgcatt taattttgta ttcttgagta ctgtttaaag      240
tgtcttttaa aagttctctc ttattggggc tatttatatt attctgtttg cagtttttat      300
gccaaactta cacatttgta aatagaatat ttaaaaagaa ttttttttga gggattgatc      360
tctaacttct tggggactta tanntgggtc tttgggtgg                    399

```

```

<210> 370
<211> 403
<212> DNA
<213> Homo sapiens

```

```

<400> 370
ccattgctta tcttatattc taattcccag agcaccctac ttgaaagcca gttgtttagt      60
tgatcactag atatcaaagt gaaatgatca atattagttg cacttgcctt ttttggtcag      120
aaatggttga ggcaattttg ggtggtagaa gcagtagttc gtttgggtgg attgaatgac      180
tccatgttta cttgtttcat ttcttattat gcagcagaaa tgtgatgggg cctgggtgtg      240
tgtgtatagt ataagtgttg tcagttcctt ctaagacatg cgtttactgt ctaagggaat      300
tttgaacctc attcccattt accatgccaa aacatatata tctattttat gttgccttgt      360
tttttagcata agaagtatat ttacttaacg ttgcttgctt att                    403

```

```

<210> 371
<211> 398
<212> DNA
<213> Homo sapiens

```

```

<400> 371
ctccacaaac cacaggcctc ggcgggggaa gagcccggcg ggcgccagcg aagcgggaacc      60
aaacggagcc gcggcacgca ggcgcaaaag ctggcggttc aggttcggtt acgcgcgcgt      120
tcgccgtgca ggtggtggcg aagcgctcct ccgaaagggt tcggaagctg gtggtagctc      180
tgaagataac gctgcgttag ggcatactgc ggcggaggat ggaactccga ttgaaagcag      240
ttgctggagt ggagcacgaa tttcaacaag ccgcatgttg aagtgtgagg cgtgaaaggg      300
tatgtctgat atttgcttta aaatgctcca gcaaagaaat taagggatgg atgaagcaaa      360
agagccaggt atggtggctc atgcctctaa tctcagca                    398

```

<210> 372  
 <211> 397  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(397)  
 <223> n = A,T,C or G

<400> 372  
 aattcggcac gaggtgnctg ttaattgtat taactaacat actagtgtct gttaattgta 60  
 ttaattaatg tgtgtacatt tctttttatt atagattcta aagcaaaacta ctacacgtag 120  
 gccatcatgt tccaagtttt tgaaagttca tctttttcat cttgttgata aatttcacatca 180  
 actttttatgt aggttaattca aatagaaaatt tgggataaat tggactgatt ttttgggatt 240  
 attgagtatt tttatttcag ctcgtttttac agcactgaaa gctggagtaa aagacattag 300  
 atatccctag tcacttgaga cttcatttta aaagccagtt gtactggcct tgccatggct 360  
 ttgtcttgggt tttgatttct accacatttc ctccctct 397

<210> 373  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

<400> 373  
 caagcacccct cccaaacctt gtcttccctc ttctgttgca tcccttccct acccttccct 60  
 cccaggtgct cgggtacttta cctagtcttct atatatcagt gttttatggt ggaatttttc 120  
 cttgttttta ttttactagt tggtaaacc cttgttatgct gaaacaaata aggaaatggt 180  
 atatttgacc atattgtgta ttcatagaag acagtatgat caaatgtgcc aaaaacaagc 240  
 aaacaaaact taattcctga gaagtatgcc ttatttttat tgatctgctt tgtcttataa 300  
 ttaagggtcca agagcttgggt taaactgtat tatttgccta agtataaaaag aaaacttgaa 360  
 ctgcattgca atattgacgt tctttaaaat gag 393

<210> 374  
 <211> 396  
 <212> DNA  
 <213> Homo sapiens

<400> 374  
 aattcggcac gagctcattc ccatttacca tgccaaaaca tatatatcta ttttatgttg 60  
 ccttgttttt agcataagag tatatttact taacgttgct tgtcttatta tgagtccttg 120  
 ggcaaaaaca gaggcaattg tactttgttc tttgttgat ggggtggcagt tttcagaaat 180  
 gcaacagatt tttaaatttc aaaatagcaa acaatgggggt ctatctttcc tctgttttgg 240  
 ggaagtaaga ataataatta ttttctctcc tagcttttaa agatgaaaat cagtttttat 300  
 ttgatattgt aatttaggac atcattttaa taattttata tcatatgctt gtctcataaa 360  
 taatatacta tacaataaaa tttaatgagg acccac 396

<210> 375  
 <211> 396  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(396)  
 <223> n = A,T,C or G

```

<400> 375
ggaaaaccta acctgattag agccttgact attttgaaga ttaaatagcac actttttata      60
taatgtgacc agttttaaag tagtttgat  tgtactgggg gaccttttgt tgttggtgtt      120
tgcttaaaact gtgatttttt ttccccctcc taatttcagg ggtgagattg actttgggaa      180
gacagattag ttctttgtca ggccaacaag tgatggagtg cgggagagag aacttggcac      240
ccaaatatat caaactattc cgtgccgtgg atgttttcat tgccaacgag ggtgtaatga      300
tttgcttctg caccttggtc tagngctggg ttgnggtggt tttgtttgta aattancctc      360
actgcctccc tgaaagtgca cagtcagccc aggtct

```

<210> 376

<211> 412

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(412)

<223> n = A,T,C or G

```

<400> 376
aattcggcac gagatttcct acaaaagctt gatgccatag agctcttact gctttaggtg      60
agaatttgag tctttgaatt atttgttttg aacttttatt ttggcagaaa taccttttta      120
gaacaatggg tagctctaac ttaggacttt gggtttccta cgtcgcttta ttttccttg      180
ttaaggttcg tggttaaaat accatatatc aggtttaaat gcttacaaga tttccttggt      240
gctgaaattc tggcgctgga ctgtggctga taaaatatta ttgtggtttc tttcactaga      300
agaaactttt catctgtaga acttcgtttt tagttgaagt cattgagcct ttctttactt      360
gaaaagaaaa ttaagtactt ttcttccatc ctntgaaaag ntaaataaaa ag              412

```

<210> 377

<211> 387

<212> DNA

<213> Homo sapiens

```

<400> 377
gttacaagcg tgaaacacaa acttcagatc aaatctagag ttgcttcatt taatgcatgc      60
tagcaacagc ctaaactttg gattcagtta tttgaaacac ttttcgggca tctttccctt      120
tctaagtgtg tggggtggaa accggatggc aaatcactgt gagccggata cctcagcaca      180
gtccaccttg tgtgtgactt cacaaatggg ggacttcaca aatggggtaa ctgaatgtta      240
ttactttcaa attttgacat ggagcattat gatcaaggaa atggagctgc cttatacatt      300
aaaccctgta tttaatccta ttgacatttt catagccatg cctccagatt ttatcttttt      360
ggcaaaattc tgattccaca gtttgg

```

<210> 378

<211> 392

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(392)

<223> n = A,T,C or G

```

<400> 378
agagaagaaa gagctgcaaa tccaggtgga gcactacgag ttccagacgc gccagctgga      60
gctgaaggcc aagaactatg ccgatcatag taagtggctg gcgggagcct ggaggcgcgc      120
ttgatgggcg ctgctctggg acggctctgg ttggggtggg catggagcgc cttccacaca      180

```

aggggacgag	aggaagccca	ttgggagcct	cagccatgta	ttccagctct	ttgtactgct	240
gcctgtttct	gtaatgggcc	ccagattgtg	tgtggaaata	agtaaatacag	gccactgtgg	300
cccatagcac	ttttgcttca	gagtgaattc	tgacccccag	atcacaagtc	tgtggctctg	360
aaggnccttn	ctgaatcttt	tnaacagagc	tc			392

<210> 379  
 <211> 409  
 <212> DNA  
 <213> Homo sapiens

<400> 379						
aattcggcac	gaggatatgt	tgagacaatg	actttgggtc	aagaggaaat	tacatagctg	60
aaatattaag	accttgaaca	tagcagaaac	ataaacctat	gaacaacttg	tgttttgtgt	120
gaaagctagg	gtagctgata	ggattagcag	atattggtag	aattaagagt	caatatttaa	180
attattgcta	aagattaaaa	tccctcatct	tatagtttgt	aggggattcc	atgatggtaa	240
ggtatagatt	gaaattaaat	ttagtaacta	ggcatttctg	accataccat	ataaaaaata	300
attgtaatat	ggtataaaca	ctgattaaaa	gtaattatgg	attttcatgc	ctgaagaacc	360
tttcagtatt	cttacagcac	tgtatcttct	ttattggtga	gaatatcag		409

<210> 380  
 <211> 409  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(409)  
 <223> n = A,T,C or G

<400> 380						
ggaaatggag	gtgagtgttg	ccaaggcaat	tgatgacctt	attgttgacc	tgcttgacca	60
aaagagaata	aattattcca	aaataagaac	cttggtctct	tttgctgggc	tatggttgtg	120
ttccatttta	aagttattta	gaaaactaaa	cacttgcaag	aatctttgtt	cttagaagga	180
ctgtattcat	agaataagtg	aaatctactt	tgatttccga	cttaccact	cccatttttc	240
tcagatattt	atcaagtaat	gtggtttgta	atccaaacaa	aaaaaagtgc	cttaatccag	300
aacatacaca	tggagacaat	aacagcagac	tgatggtgtt	tgtactttac	taaaacattg	360
agatcttctc	taaaacagag	tggttgagaa	catagtgcta	aagngaaag		409

<210> 381  
 <211> 402  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(402)  
 <223> n = A,T,C or G

<400> 381						
cacatccac	cctgcctccg	ggaaggggcc	tctcctggac	atgtctcctg	cagctgctgc	60
tgagccagat	ggggaccagc	aggacagaca	cgtcagcaaa	ctcatcctct	gcttctttgt	120
cttcggcgcc	gtcttggtgt	gtgtgggagt	cctgctctcc	atctttgggt	tccaggcatg	180
ccaatataag	cccctcccag	actgccccat	ggtgctcaag	gtggcggggc	ctgcatgtgc	240
cgtggttggt	cttggggctg	tgatcctggc	cgcctcccgc	gcgcaacttc	agctccgtgc	300
agggctgcag	agaggtcagc	agatggaccc	cgaccgagcc	ttcatctgtg	gagagagccg	360
ccagtttgcc	cagtgcctta	nantttgggt	tctgttcttg	ac		402

<210> 382  
 <211> 388  
 <212> DNA  
 <213> Homo sapiens

<400> 382  
 aattcggcac gaggcagtgt ctccatcagc agtttgcctt ccatgggcac acgatgacaa 60  
 aatatcctga agcgaaccac tagtctgacc tcagtagcag gattggaagc ttcattgcat 120  
 gggagctgtc aagaaaggca tcccaaagag aactgaaatt taaaaataat aatagacctt 180  
 caggaatagg tgattgtccc catatactgg ggatgaaata cccaatgtaa ccaaattccc 240  
 cagtaagatc acttagtttg gcaatagtct tttcttttga gcatgttgaa gtttatttgc 300  
 tcaatgaagg ctgaaattat aagtcagtat atatgtatta ctaagtagaa cttgaggtaa 360  
 ttatatgttt tagtcaaaag cagtttct 388

<210> 383  
 <211> 455  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(455)  
 <223> n = A,T,C or G

<400> 383  
 tttgnccttg anancgcacn cggtcttttg cntttgcagg atccnncnatt cnaanncggc 60  
 acgagatcac tctcattatc actgctcatg cttcttctct cccactgccg gttatgattt 120  
 tggaggagtg gggactatga catgtttctt tgtatcatct ctgacacaat agtttgcctc 180  
 ttgtcagtgc cctaaatgta tgcataaaat gaatgtgtga atgaatttga cataaatgaa 240  
 tattgttttt ggtacctcag ccattctttc ctttaaatcg tttccagttt cccagggtt 300  
 cttttgcatt tatgttctcc ttccagtcct tcatataaaa ccttcctttc aggaaagaat 360  
 tgggtgagca tactcaacct aagatattaa tggccaaaaa atgttagact tttgtggtat 420  
 acgcatttaa aagtgtagaa ctgggccggg gcgagg 455

<210> 384  
 <211> 429  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(429)  
 <223> n = A,T,C or G

<400> 384  
 aattcggcac gagaaaagaa atagggttga attctgataa aaagtgcact attagaaaag 60  
 tattttctatt cctctaggga catccgttca atttttgttg ttgcttcatt gatttttcta 120  
 aaaagggtgt gcctttttaa aatcatttta gaaaggcaat gtcattttta atgacattac 180  
 taccatgcat agttttgtga gaaacctggc tatgttaaag ccatttcatt tgagatacat 240  
 tttgaattga aagttattct gttgttcttg ttttcagaag cagataattt tggcgatgtc 300  
 tgggccttct tgctgctctt tatctgttta cctacctgct tatcacaact aactttctgt 360  
 ccagnttttt ttaatcctta gtaaatcagt gnctaagaat ctttagtcac tcagttttga 420  
 ggatgactg 429

<210> 385  
 <211> 407



<212> DNA  
 <213> Homo sapiens

```
<400> 385
ttttttttga attattgaga atattttcttt ggaccacaaa ctataaaatg tgaaaaaaaa 60
taaaaagtat gccaaaaggg ccacgtgttt ctacaacaca cgaaagttaa gaataatact 120
gcatgtctaa tatgcaaata aaatgtctct gccaaaatat cacaacttaa atgcccatta 180
tgaaacaaac cacagaaaga ccttatttgt gttacatacc aggaacatac caaaatttga 240
atgtctgata cacacagtga ttcacataag atgataaaga aacaaatgga tattttgtga 300
cacaaacgta ttgtgaagcc ttaatatcac agatttatat gcatttaatt aaccatatag 360
gctatctgaa aattattgat acatcacttg tttctagggt ctaaaaa 407
```

<210> 386  
 <211> 405  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(405)  
 <223> n = A,T,C or G

```
<400> 386
aattcggcac gagattacct ctaaaatata gacaggaata tgacattctt atttgaagga 60
aatggaagggt aattcttttc acaaaacttaa gaatctttcc atgacataaa taaatcgagt 120
tttatttata agtaccctag tagctagtca catttctggt aacctcagcc aaaaaataaa 180
tctgccaatt ccttgagtca ttaaaatata ttttacattt atattctgca tatttacttt 240
aatgatatact gnattttact gcacttagca cacaagttaa acaaaaatttt cccaggccac 300
aagaagataa aatatgacaa agagtaaccc agttttgaaa aatgaagaaa tgaatactct 360
attgaagcaa gtcagaatgc cnaagtcaac aatttatgaa ttttt 405
```

<210> 387  
 <211> 408  
 <212> DNA  
 <213> Homo sapiens

```
<400> 387
aattcggcac gaggttagat atagcgattg ggtagtggaa tgggtgttgg atgcaacagg 60
atcttggaat atatttctgg gggtagagg ataggctgag aatattatag atgtttggaa 120
acatttgtgc caacctgaag atgggtgttc tttgtctctc ccaattagca cagctgtgtt 180
ctgttggtca tctggttagag tgatcaatct agagttagaa tacctaggga tgacataaag 240
gaatatgaca gtccggaaat ctaccagatg aagagccagt ctgagctcag aggggatttt 300
gagccaaggc atggcatttt attttttagat ggagctgaac attgtgatag taaccagcac 360
tagatgaact aaagttcagg aggaaaagcg gaactatcca aggtgaac 408
```

<210> 388  
 <211> 419  
 <212> DNA  
 <213> Homo sapiens

```
<400> 388
gtccccagggt gccgactctt cgcttttgac tcagagggaa attacatgct gacatgttct 60
gccacaggcg gcgtcatcta caagctgggt ggcgatgaga aggttctgga gagctgcttg 120
agcctagggt gccaccgagc cctgtgggt accgtggact ggagcactgc catggactgt 180
gggacctgcc tcaccgcctc catggatggc aagatcaagc tgaccaccct cctggcccat 240
aaagcctgat tacttgcccc aagggccacc cgaggaagca gtattatctg cgggtggggg 300
```

aggagatata	ggacaggaaa	accacgtgct	ccactccagc	tccctgcagt	gcagtgactc	360
tgcagggaaa	gactgcaagg	aggctcaagt	gcttccatct	gtggtgactg	gaatgggac	419

<210> 389

<211> 399

<212> DNA

<213> Homo sapiens

<400> 389

aattcggcac	gagggttaatg	ctttcgtctc	ttgtaaggta	aggcatatac	tgcttgctta	60
cacaagaact	attggcattt	tctttttttc	gtttgaaaca	aatatgaaaa	atagtatttt	120
ggttttaaga	aatttttatt	ttagcataca	acataatact	gacatttggt	ttttcttttt	180
tgtcttgtaa	acttaattct	taaaacttag	gaaaattttt	ggataggaca	acttggtgat	240
tcagctataa	cagatcttat	ttcaataata	actttctgca	atatgtattc	atacattttc	300
aaatgtgtgc	cttaggaaat	cacaagtgc	tttatagtgt	gaagtgttaa	tggtgaatc	360
caactgaatc	accaactagt	aagtgggggt	ctggttgat			399

<210> 390

<211> 400

<212> DNA

<213> Homo sapiens

<400> 390

aattcggcac	gagcccagga	gccctgctct	caggatttac	aacaccagaa	tcccaagttt	60
tctgagaatc	gggcatccaa	ccctcctgct	tcctcatggc	aaaaaaaaatc	cctggaccta	120
gaccagata	tccagggttaa	gtccctggtc	aaaaggacca	cacatttccc	tgatgggttat	180
ccaccttgcc	ttgccacggg	ctgtgctcat	ccctctctct	gtccttcatt	cctctctgac	240
atctttctcc	cagagtaact	gctaacttcc	agtctaaatc	ttgctgagga	agaagagata	300
ccacctcatg	attcatcttg	gagtggccaa	gcctccctcc	acttgtttaa	attgccccat	360
tcccgagac	cttgccctgt	gcccagcgct	gggctgagca			400

<210> 391

<211> 403

<212> DNA

<213> Homo sapiens

<400> 391

aattcggcac	gagggtggca	cgtgccttta	gttccagcta	ctcaggaggc	tgaggcagga	60
ggattgcttg	agcccaggct	gtgtggttca	ccataattgt	gtttgtgact	agctactgca	120
ctccaacctg	ggcaacatag	tgggacttca	tctctaaaac	aaaacaaaac	aaaattacac	180
ttaagcacta	ttgtttaatt	tttaattgtc	agtttatcat	tattttgggt	aagacattct	240
ggggtttctt	gaatcttgtc	caaaaaccag	ttgttttgga	aaattgcttt	aaattgagca	300
tatttatgta	tattggataa	aaatgtacta	cagagcaa	ttcaaatttt	tcattatatc	360
agtctttttg	aaaggatcaa	cttggataaa	ataaatatat	aat		403

<210> 392

<211> 401

<212> DNA

<213> Homo sapiens

<400> 392

cagctttttc	atagtggatt	tgatggtttt	taagtaaaga	atggaactgg	tatgcttttg	60
aaatcagtgt	ggcttaataa	aatcctcatg	tgtatttttag	cacctcctac	ataactccat	120
acagtatact	ttttgttccc	cttttcattt	tccattttatt	cctgggtttct	ttgtatgtct	180
atgctgtcct	ctctactatt	ttcctcttcc	tctgttttga	actttttcct	ttctctgaat	240
aacctaatgt	gaatttcagg	tggtctcatc	tagccactca	ggtgctaaac	actaaatgat	300

tttatgcctg cctttatttc ccaaagacaa aaagtcactt atgtacaaaa gtgaaagtgg	360
tgctgatgca ggaaagccaa aatggagtc taacacttgc c	401

<210> 393  
 <211> 416  
 <212> DNA  
 <213> Homo sapiens

<400> 393	
ctgctgacca ccatacccca ctccagcctc actgagcatt tttgtgtaag gttagtgggtg	60
cagttcattt agcaataaat actgttgtag cttttgcagt agacaactat taactttcat	120
ccttgattct cagttttttc caaaatacaa gtgaatacct ggtttcccca gcaacattgt	180
aagattgaga gtaggaattc attgagattt taatgaattc catggattgt cttagagct	240
atctaaactt ggaagaaaaa taacttccag agcatctaaa attgaaaata aaagatcaga	300
agcaaataaa agatcaattc cacacagctt ttcctctctt agacgtccct cttctgccat	360
atcctgtaaa catctgaagt gttctgagta catttgagga gaatatttaa tgatca	416

<210> 394  
 <211> 384  
 <212> DNA  
 <213> Homo sapiens

<400> 394	
agcaacccta gcaatagact gactctacta caaaacaatt tgggtatttc tcttactatt	60
tctctattat atctgttgag ggaatgttat catgagcaca ggtattagtc ctatgctttt	120
aatcggttta gtggtttctt tgtgtctcat tttattcatt tgtaattttt ttaaagacta	180
taaaacttcc acagtttctt tagatcatta agttatatga ctctttttca tgggggtcag	240
ttaacaatac ataagaaaac attcgttcta ggataatata tgacctaaaca gtcttttggt	300
agacttagag atatcaatat gctttctatg tttcaggcat attttatatt cctggaaatt	360
aaacaatata ttttaggacc ccat	384

<210> 395  
 <211> 314  
 <212> DNA  
 <213> Homo sapiens

<400> 395	
aattcggcac gagctgaggt ttctgattcc atatttaatt gactattatc aatagcctga	60
tattgaaaaa catttgtagt tttcagtggt aaactaagg gttgaagaat cactattaca	120
atccctatta cagagcattt cgggttttgc ttgtatttta gattctgata catagcgtgt	180
ttcactcagg aactacttct accagttaat cagcattatc cagcacttgt ctttaaaatt	240
catttggcgc ttgtttggtt tcaactgagg aaattgagta tagttcattg aagaatggaa	300
tttttttttt tttt	314

<210> 396  
 <211> 315  
 <212> DNA  
 <213> Homo sapiens

<400> 396	
gatatgcttt aaaattaagg tgagtgggtat tatctctagt ttgagacaaa gagaagcgaa	60
gtaacaaaag gccacataag tgataaatag tggacctgga gtttaaacct gggatcccca	120
cctaattcag aaatacgaaa tcaaccactt ttttgatgat ccagggtcta tgtatattha	180
ttacatgtat gtatatatgt atatatatat gcatgtgtat atatgtacat acatacatat	240
agatgtgctt gtctagtgtt tttcccacca gataggtagc ctttcttctc cccttgctca	300
cttttttttt tttt	315

<210> 397  
 <211> 386  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(386)  
 <223> n = A,T,C or G

<400> 397  
 aattcggcac gagatagtct tattttttat ttcagtatag ctatgggttac ttttttcatt 60  
 ctgtgttttg tatatttgta tccttgatct gtcttgctag aggtttgtct ttttaattaa 120  
 cttttgatat tgaaaatttc caagcataca taagagagtg taaaaaactt gcaagcacc 180  
 attactcaac ttttaacaact atccatattt tgccatattt ttttttgcct tatcttttta 240  
 agaaatgtct tatacagtgg gtgaggtgga cnatgcctgn anttctngcc tctgngange 300  
 ngganncntt cncnacnntt cganctcncc ctentacntg nntnngncnn ncanngctnn 360  
 cnnnannccc tggntcnntn nctcac 386

<210> 398  
 <211> 462  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(462)  
 <223> n = A,T,C or G

<400> 398  
 ttggcctttg gantntcaca cgagcttttg cangatccgn tggattcgaa ttcggcacga 60  
 ggcttctcct cctcttctcc agctcccagg cgaatcatac agaggtgtgc tctcaaagtc 120  
 acacacacat acattcactc agcagatagg tgcacactcc ccagaacaaa cccagtctct 180  
 gagccccctt caccaccctc cctctctccg agctcactcc caagggcctt gcctcagtgg 240  
 aacactgtga tttggacagg gaatgcaccc tgacttctgc acaccggtat atcacctttc 300  
 ctgcatcctt aattaaacaa atcctgagca tttacaattc aaccagtatg cattcagcac 360  
 ctactgtgag ccaggcccag ttctaggagg cctggagaga agggcggtga caaaagagac 420  
 caaaaatctc tcacagagat gataatgtgt cccacatcgc cg 462

<210> 399  
 <211> 420  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(420)  
 <223> n = A,T,C or G

<400> 399  
 aattcggcac gagaatagat gtatagttgc tgccatctcc ccatataaaa actctcttta 60  
 catcgtttct gagccacttt ctttgctgtc tgcagcatctt aaaatatatt atttttccta 120  
 attagaaaag tcacaggttt tagaaaattg ggaaaacaaa aagagcataa agaatcatca 180  
 atactctggg atagatatag atctttccag tacgtttgtg tatgtgtgta cacgccatta 240  
 tctacaaaaa agttatgttg aacatggtag tttaagctgt ctttctggta aatgctctta 300  
 tacaatatga ttttttagtga ctaatatcc ctaatgtgtt catgccagaa ttcacataac 360

cagtaccttg tcaaatagga ggtttctgat taaatagtag tagagacagn atcctgttac 420

<210> 400

<211> 415

<212> DNA

<213> Homo sapiens

<400> 400

aattcggcac	gagactacaa	aatgttaaca	atgggtgaat	gtaggtgaag	agtatgtggc	60
agggtgtttt	ttattctcgc	aaattttgtg	taggtttgaa	gttaccacag	aatagcaaat	120
ataagaatga	ttcctgcaga	cacacgagtg	atttcaactg	ttcacagggc	tcaggcagga	180
agcagatctc	ttgccctccc	tctgatccag	gtcacttagt	ccagtccctg	aaagcagtgg	240
atggacaacc	atgccaccct	ctttcttcca	atacacctta	ttttgtatcc	tgcccttttt	300
gtgtagcatt	agatcatgag	cattttcctc	tgctataaat	gtccctcaa	atatgttggt	360
tcttgtgact	ccctagtgtc	taccacgat	ttcctcggct	gtccacctt	ggggg	415

<210> 401

<211> 407

<212> DNA

<213> Homo sapiens

<400> 401

ctctgagctg	aggaaacaag	gtgtcctcca	tccccagtg	ccttcacatc	ttgaggatat	60
gcttctgtac	tttttaaaag	cttatagttg	gtatggaaaa	catttttctt	atttttaagt	120
gttattaatt	atatctatgg	aaaaactatt	cctgaaatat	atacagtctt	atgtcccaat	180
cagagtcttt	taacctatga	tttaaaaatg	tataagtaac	agaaattaac	atattttaat	240
gactttactt	tttattttcta	agaaaagtat	ttgaaaaatg	gaataatttt	aaatcaatga	300
taattctagg	gatcatgaac	tcccagaaga	ttttattatt	taattgtaaa	ggtagaggcc	360
agacgcagtg	gtcacgcct	gtaattccag	cactttggga	ggccgag		407

<210> 402

<211> 405

<212> DNA

<213> Homo sapiens

<400> 402

aattcggcac	gaggtcagtg	aaatagaatg	caccaccatg	agcatcatca	cctacaagct	60
cctaacaagc	aagatatctt	gaaaatttca	gaggatgagc	gcatggagct	cagtaagagc	120
tttcgagtat	actgtattat	ccttgtaaaa	cccaaagatg	tgagtctttg	ggctgcagta	180
aaggagactt	ggaccaaaca	ctgtgacaaa	gcagagttct	tcagttctga	aaatgttaaa	240
gtgtttgagt	caattaatat	ggacacaaat	gacatgtggt	taatgatgag	aaaagcttac	300
aaatacgctt	ttgataagta	tagagaccaa	tacaactggt	tctttcttgc	acgccccact	360
acgttttgcta	tcattgaaaa	cctaaagtat	tttttggtaa	aaaag		405

<210> 403

<211> 386

<212> DNA

<213> Homo sapiens

<400> 403

gatcatagct	cactacagcc	ttgaagtcct	ggactcaagc	aatcctcctg	cctcagcctc	60
ccctgtctca	aaagttaaaa	aataaataaa	ttttttttaa	aaaaagaatt	aattacaagg	120
tgaagttaac	aaggaagggt	atatgtttatg	aagaatattc	tactatacga	ttgtaagttt	180
agacttggtc	cagtagcaat	gtggagggtat	tgaagttttt	aagcaggaga	ataaaatgat	240
cagattgagg	atgatggctc	tgatggtaaa	gtataatcaa	gttttagctt	cctaattgtcc	300
tttctttgat	gcacttaaca	atttgaccac	ggaaattaaa	cttactgcct	ttaccctaag	360

aacccatgta gttcttcaag gtctcg

386

<210> 404

<211> 426

<212> DNA

<213> Homo sapiens

<400> 404

aattcggcac	gagacaacct	gtccccctgtc	acagcagcag	aacaaggcca	aaacagggat	60
gaagtaggaa	gaataaacac	ccagatttcc	tctaccctc	ccatctcttg	ctgggtgcctc	120
cagtgcataa	ggaagtccag	atgatgcagt	caatagaggt	cagcctccca	gatgtggagc	180
tagagaagag	caaaaagtgg	cctgggaata	tacagaataa	cgagcacacc	atccttagac	240
agtcacatcc	atccacacat	ccatttcacat	ttcagttcat	accagagatc	attgctaattg	300
ttatatagaa	cataataaac	ataaatccca	tttctcactc	attctaaaca	ttacatttca	360
ggtacacagt	acatcccatc	atcatacatt	ctggccacaa	cctacccttc	ccacatcact	420
tctact						426

<210> 405

<211> 408

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(408)

<223> n = A,T,C or G

<400> 405

aattcggcac	gagcatagca	atacactgtt	ttatttttatt	gttagttatt	attgttaatc	60
tcttactgtg	actgatttat	aaattaaact	ttacaatagg	tacgtacgca	taggactaaa	120
cagtctatat	aggettgtgt	actatccaca	gtttcaagca	tccattggag	gtcttggaac	180
atatctccca	tggataaggt	gggctactgt	attggtttaa	gttcctcaga	tttcttggac	240
tacctgacat	taggctctac	aattctttca	tacatgctac	ttcaatcagc	agcatgctta	300
gcacatagca	tgtgtttaat	aaaagttaa	tttaaaaata	aaatcaagat	ttccagttga	360
actgaagcta	gggaaaccta	cacatatatt	gtgcgttagn	tngtttgg		408

<210> 406

<211> 398

<212> DNA

<213> Homo sapiens

<400> 406

aattcggcac	gagagcaacc	ctagcaatag	actgactcta	ctacaaaaca	atttggttat	60
ttctcttact	atctctctat	tatatctggg	gagggaaatgt	tatcatgagc	acagggtatta	120
gtcctatgct	tttaatcggg	ttagtgggtt	ctttgtgtct	cattttattc	atttgtaatt	180
tttttaaaga	ctataaaact	tccacagttt	cttttagatca	ttaagttata	tgactctttt	240
tcattggggg	cagtttaaca	tacataagaa	aacatttggt	ctaggataat	atatgacctt	300
acagcctttt	gttagactta	gagatatcaa	tatgctttct	atgtttcagg	catattttata	360
ttcctggaaa	ttaaacaata	tatttttagga	ccccatac			398

<210> 407

<211> 396

<212> DNA

<213> Homo sapiens

<400> 407

actacttaga	ggccacgatg	aaatatTTTta	gctagTTTTg	ttaattaaat	aaaaaatatt	60
ttaacttaat	tcgatgggaa	atatttcaaa	gtttctctta	cagctaatta	agctaagtat	120
taatgtgaat	gtgtaaagt	actgattttt	aaagctatca	ggaaattaca	ctctgccaaa	180
tattatactg	cagctagaat	ctagatgatg	gcaggatatg	aaaacccaaa	aactgtctaa	240
aaatttttatt	aaaaatatga	gtcagtctca	atcggtttat	caaggcatac	attttgttgg	300
agtgccagaa	aagaccataa	tgtgtatgtg	aacatttgtc	tttgtgttaa	attaattagc	360
tttagaataa	aaatgtaaaa	attatttgcc	cacctg			396

<210> 408

<211> 406

<212> DNA

<213> Homo sapiens

<400> 408

aattcggcac	gagatatagt	ccagatgagg	aaaataaggc	tgaaggcaag	ctaaacttgc	60
ctgaagccac	attgctagga	agtgcagaa	ccttgtaaac	aagatttaag	atttgatata	120
ctttcttatt	ttctaaaaat	ttcaatgtgc	atgtagtctt	cagatgcttt	cctcgaagaa	180
aagggagtgt	catctattta	tctgaccttg	caattatgac	atttcttaga	agtttttttt	240
tttaactgac	cgtatcttat	gaaatggctt	tgcgatgggtg	ttgttgaaat	gacttttttg	300
ctgcagtgtg	ccttgccctg	ataattcctt	cttcctacta	tgcttcagtg	taattatttc	360
tcttactccc	actgatactg	ggggaaggag	aggaaactcc	ctgatg		406

<210> 409

<211> 448

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(448)

<223> n = A,T,C or G

<400> 409

attcggctct	tnatctnctc	ttgttctttt	gcnggaattc	ggcacgagag	tgtgcttgac	60
tccagtggaa	ctcacacagt	aaatagcgct	cgattacaca	caccattctc	ataactttct	120
ctcctgcctt	ctttagcttg	gtacagctct	gtttgcaaca	agatcctgag	aaaaggtaat	180
attgatctct	tttaaatagc	acaaaatgta	catgtttttac	attttataga	agctttgtaa	240
cattgcccct	ccaggagaat	acaaatcttt	tgatcaaaaat	attgctgctc	taaanatntc	300
aatgcttana	acaattagt	ggaacaagcc	aatgagaaga	atctggattc	aatcaaaaaa	360
aagctgggtg	cgggggctna	cacctgnaat	cccaaaacttt	tggaaggcca	agccggtgga	420
tgntgagtc	aggagtcaaa	cccccttg				448

<210> 410

<211> 418

<212> DNA

<213> Homo sapiens

<400> 410

aattcggcac	gaggagctgc	ccccatgatt	cagttacctc	ccaccaggtc	cctttcacaa	60
tgcacgggaa	ttatgagagc	tacaattgaa	gatgagattt	gggtggggac	acaggcaaac	120
catatcagac	cccaagatct	cttttcagct	ctataggctg	atccctgtga	cttgcatctt	180
gcagaagaaa	acaatggcct	ttcagtgcct	tttttgtaaa	taatattggt	gcatagtcag	240
agaatatggg	agacagtgtc	tcctttattt	tgaagacata	attgtgggtt	ggtggaaaaga	300
gctctggact	aagagacaga	aggcctaggt	tttactttta	gcttcaatac	catgtggcca	360
tgtgaccgga	ggaaggttga	ctcttctgaa	cttcagttcc	tctacctgag	aaacaaga	418

<210> 411  
 <211> 416  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(416)  
 <223> n = A,T,C or G

<400> 411  
 aattcggcac gagaccccta tcaagataca gcacattctc gtcactgcc aagagttgcc 60  
 ctttgccctt tcttggtcag tacctgctcc cagaagcagt cactggcttg ccttgtcatt 120  
 gtgggtcagc cttgcctctt ctagaatttc acagaggggg agtcctgccc cgtggagtcc 180  
 gttgggttga gcatcttcgg ctacagcatga tctttttgag atgcagggat gttggtgtgt 240  
 gtgtatcggg agtgctcttc ttaagaaat tctttcccgt gagtatttct tcaagcctgg 300  
 atttctcatg aggcctccaa ctgcagaaga tgaaaaggga gggctgnggt tctgtgtgtc 360  
 canctcctgg tngncagtaa gngctctgta gatgcttggg gaatgaatgg atgggg 416

<210> 412  
 <211> 461  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(461)  
 <223> n = A,T,C or G

<400> 412  
 tttggcncct tnaatacaag ctctttgtgn nnnatncaag aanccatctg agttcnaatt 60  
 cggcgacgag cagacaccga gcttcagcaa gctctctcca acggatgaag cccacccgc 120  
 ccttcaggat gccagccttg gcaacattgt gagaccctga ttctacaaaa agtaaatgag 180  
 tgtagtgggtg cagcctgtga ttcccagcta cttggggaggc tgagatggga agatcacttg 240  
 agcctgggag gttgaggtcg cattgagctg agatcaagcc acggcactcc agcctgggag 300  
 acagagcgaa acccatctc aaaaaaaaca aagaaagtgg atgcgcgctg ctctgccat 360  
 tggatcatcg cagcattttt cttttctctg atatgcacct ttttctcatc gggggggctc 420  
 acgttttcat agttccctct cactactagg ntgggagctg c 461

<210> 413  
 <211> 415  
 <212> DNA  
 <213> Homo sapiens

<400> 413  
 ctgctagccc catgtgacca tttgaagttg aatttaaate tacattaatt aaacttaaat 60  
 aaaacatttg taaaaattag tctctcagcc actagtcaca ttttgagtgc tcagtagcca 120  
 tcccttgcaa gtattaggac agtatggaac attcccacca ctgcagaaag ttctgtggtg 180  
 cagtgtccat ctatatgatt ctacaaatgg aagatttagg ggaagaggag aagtaagtag 240  
 tgaggtgtac ctaattgctt ctataagttt tagtaccagg aacccttcct ttaaaatatt 300  
 gatatttggt gaaacattca gatatcacgt tttaaagtga tttcatggac actaatcaac 360  
 agagcaacaa catagatata tcattgctac aaggatggat caatacttgt ctacc 415

<210> 414  
 <211> 427  
 <212> DNA



<213> Homo sapiens

<400> 414

aactctggct	cttctcgtga	attacatttc	actggagtc	ggtgttttct	gtaaaccatcg	60
ttaaaccacg	agaccaactg	cattgaacat	tttttgact	acattgtttt	atttcttgct	120
cgtcttttcc	ttgcagagct	ggggctgggg	tgagggtgtg	ggtgtaccta	gcactcaaaa	180
tgtaaggatt	ctcagagtca	tacagggtga	cggtcagcac	ctgagagtga	gccacccttt	240
aacattttgc	cttctagggtg	cttcacttgc	cttgcccaag	cactaccctt	agattaaata	300
atatgtttct	attagttttt	taaaattata	atattaacaa	taactagcac	ttattgagca	360
ctcccttatg	tgcagcaaaa	tgtgacttac	atgtatctgc	ttatttttcc	ttacatgaaa	420
ccctctg						427

<210> 415

<211> 414

<212> DNA

<213> Homo sapiens

<400> 415

aattcggcac	gaggttttcac	cgtgttagcc	aggatggctc	cgatctcttg	acctcgtgat	60
ccgccgcct	cagcctccca	aatcgctggg	attacaggcg	tgagccaccg	cgccccgcct	120
gtatctgcct	ttttgaccac	accattattc	gtgggattta	acaggagtta	atgagttaat	180
aatgttccct	ttccaaactc	agtggttttg	attttaca	ttatttgact	tttctgatt	240
tcaggatctt	gacaatttgc	ctttacttat	tcaaagtgtt	ttataccaaa	tattttattta	300
aaaagttttt	ttttctttga	ttcctcaagt	tgtagagaga	aatagggata	gggaagcaga	360
atcaagtagt	taaaaagata	gcctcatttg	accctgattt	cccaattggg	aata	414

<210> 416

<211> 414

<212> DNA

<213> Homo sapiens

<400> 416

caattcggca	cgagatgagc	ctttactgta	agctacctta	aatctttttt	ggaaagaggt	60
aggatataaa	ttaaaccatac	acctcccca	gatctcagag	tggtgatgga	ctgattacag	120
agacggggag	caggatattc	ctcattcatc	actggaggca	gaaaaatcac	ctccaaatat	180
ttgttctctg	atagcagttg	ggaaaagtcc	tccttaaattg	agaggccac	gaagggatga	240
atagggattt	tggctgacct	ccaaaagtga	gctaagataa	tgctgcctt	cccagtatta	300
cttgaggcta	attactcaga	tataattact	tgcactctgt	gtttttgctt	ccaatagggt	360
tgggccttgc	ttttgtttat	cttgtatccc	ccattagact	ttgagctctt	taaa	414

<210> 417

<211> 408

<212> DNA

<213> Homo sapiens

<400> 417

gcaccacgcc	ccactacatt	cgctgcatca	agcccaacag	ccaggggccag	gcgagacct	60
ttctccaaga	ggaggtcctg	agccagctgg	aggcctgtgg	cctcgtggag	accatocata	120
tcagtgtctg	tggcttcccc	atccgggtct	ctcaccgaaa	ctttgtagaa	cgatacaagt	180
tactaagaag	gcttcatcct	tgcacatcct	ctggccccga	cagcccatat	cctgccaaaa	240
ggctccctga	atgggtgtcca	cacagcgagg	aagccacgct	tgaacctctc	atccaggaca	300
ttctccacac	tctgcgggtc	ctaactcagg	cagcagccat	aactgggtgac	tcggctgagc	360
catgccagcc	cccattgcact	gtggcaggac	caaggtgttc	atgactga		408

<210> 418

<211> 379

<212> DNA  
<213> Homo sapiens

<400> 418  
gcaacatgta taaaaataga agtgcaggac cagaagtga caaaggggggt tatatatattgg 60  
gcaaagtgac aaaatatggg agagatatga catggcggat ttccctgaca ataagattac 120  
caagaaaata gattccagag acaagcaagc atgtgtatat atgtgggaat ttaatatatg 180  
atcaaagaag tatttctgat caaatgtgaa aagatgtatt agtcaataaa tacctaagga 240  
tgactgggta tccaattggg aaaaaaataa atccttacct catatcaaac tcaaaagtaa 300  
attccaggga gattaaagat ctgaagataa aagaccattg aagtgttaga cagaaatgaa 360  
ggaaactatt attataatt 379

<210> 419  
<211> 406  
<212> DNA  
<213> Homo sapiens

<400> 419  
aattcggcac gaggtcagat tccagatata tgatgaaagt agacctgcag gacttggtga 60  
cagattgggt gtgggaggtg taagagagga gtcctggcct gagtaattta gaaggatgac 120  
atggctatct cctgatgtgg ggaagactgt gggagaaaca cgctggggag gagtggagtc 180  
aggagttgag ttttagaggt attaatgttg agattcctga catatccctg taggcagctg 240  
aatatatgag tctggaaccc aagggaaggac ttagaaggga gacatttttt gtttggtgat 300  
ttacagttag accttgctct cacattcaag ttggaccttg tctcacatc cctgttcat 360  
acgtagaaaag ttgttgggtc tcttctcttt cccaagaatg agcaat 406

<210> 420  
<211> 384  
<212> DNA  
<213> Homo sapiens

<400> 420  
aattcggcac gagggaggtt tctttggaga gcttctatcc tactggaaac ccaggttggg 60  
ccccatgtgg attgatcggc agtgggaatc agctagggct gctgtaactg agttcgcaga 120  
cccagtggca tagacagcaa agaggtactg ccacgtggct ttggagacca gaagtctgag 180  
aggaaaggtgc tggcagggct ggttccttct gaggtcgcaa tggaaaacct gtcctggcct 240  
ctctcctggc atctgctggt tatctttggg gttccctgta gacagctgcc ccctccctgt 300  
atcttcatgt cgtcttctct ctctgtgtcc ttctcttccac gtagtctttt taggacgctg 360  
gtcgtgttgc cttagggccc ccat 384

<210> 421  
<211> 409  
<212> DNA  
<213> Homo sapiens

<400> 421  
aattcggcac gagacaatac atgagtaatc tgaaagtatt taggctgttg aaattttctg 60  
attgcttttag atttgcattc catgaaaaac agcagtcctc cctacctacc ttttagtatc 120  
ctaccctaga ggctgttact ttcagctctt ttagctatct cttctagcat tttcctccat 180  
gtttacaaat aatattctta tattgcactc tcattttctt ttccatctat ttcagacata 240  
ctgactttct cccatgcagg gtcacagtgt ggctttctta caccatttgc tgcaacacag 300  
acacttctcc tgctccttcc catgtggttc gtgtgtgtgt gtgtgtaagt gtatgtaaaa 360  
tccaccctta gagggggaat tgctgctggg catgggtggc catgcctgg 409

<210> 422  
<211> 407

<212> DNA  
<213> Homo sapiens

<400> 422  
cgcaaagaaa tattagaata ttaaaaagac aagtctgtct cagtatttca ttttagccct 60  
atcttttatt aatgcatggt gtgcaataac aaatcacaaat aaccagtgtg tattgagtga 120  
tataatatat tatgctgaag ttcttttcatt ccatcatctc atttattctc accttaatgt 180  
tgtctttatt ttaaagctgc atttttaagc aaaatctgcc aaagttcacc catctagtaa 240  
atgacagagc tgggactgga aaccaggcta gaatatcctt gtgtatgaat cagtaatcat 300  
ggtaaacaaag agattggtca gggaaaaatt ttggttgga taggaggaga gagagtccag 360  
tatgtaaaat gtgattttgc tattttactt gaaaattgta gatttgg 407

<210> 423  
<211> 405  
<212> DNA  
<213> Homo sapiens

<400> 423  
aattcggcac gagacatgta ccctggaact ataaaaataa aaataaaaca aacaaacaaa 60  
aaacatgtgt gcaaacatgt gttaaagact tgtacacaaa catgcatagc agctttatatt 120  
ctgatagctc taaactacaa acaatccaga attccaacag gtacatggtt aaattttggt 180  
atactatcac aatgcaatag tactcataat gaaaaggaaa tatcaatata ttaaatgact 240  
ctcaaaagaa tgaaaatcca agaaatgtca agcatgccat aagacaactg cactcaaagg 300  
aaactcaaag tgagtgaag gaaccagaca atagtaattt gtccacacta tatggctcaa 360  
tttcaataaa actgtaggaa atgcaattga atctatagca acaga 405

<210> 424  
<211> 168  
<212> DNA  
<213> Homo sapiens

<400> 424  
aattcggcac gaggggtgtga gccaccatgc ttgaccataa agccttacta tttcttttgg 60  
agacacagtc ttgctctgtc caagctgaga tgggaggatc acttgaccta ggagttcaag 120  
tcaagcctgg gcaacatggc aggaccctat ctttaaaaaa aaaaaaaa 168

<210> 425  
<211> 388  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(388)  
<223> n = A,T,C or G

<400> 425  
aattctgcac gagagatcct tcatcatcct ggaagagcct tttgccatgc aagacaacat 60  
agccacaggt ggggattagg accaggacat ctttggggtg ctgttattct gcctaccaca 120  
ccttctgtcc actgactccc acaggagagg ctacaaaatg atctggcgca cagggatggt 180  
ttgttttagct tgcggactct aacacttaaa aaaaacccca gatcagaaga tctggccatg 240  
ctggggctca cattctcacc tagcaacaac tggttgaggc tgggcaccag ctctgccttt 300  
anaaggggtg tccacttcac caggtcacca cagcccacac tacgccctat cacttcccac 360  
aatgaggctg agtggtttgtt tctactga 388

<210> 426

<211> 420  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(420)  
 <223> n = A,T,C or G

<400> 426  
 aattcggcac gaggggttaag ggagagaaga ggatgaatag gtaatgcaca gaggattttt 60  
 gaggcagtga attaaaagaa aaaaaactcg atccctgtcc ttacggatct ctggtctagt 120  
 cggagtcagc aggcacacag aggcctgctg agatggagaa tcgatgctca gattcttctt 180  
 ctgtatccag aagaagccag aggagggtac tgccctggccc tgggaggctt cactagaggt 240  
 tttcgagagg aagatgcacc gtctaagggtg tgacgggaaa gggccagaaa gagaatgagg 300  
 gaagaacatt ccaagccaca gaaatggcac atggaagaaa gcagagatga gaggagaaac 360  
 catctgtgac ttaagtggct cancagactg gagagagtcg ggcaattgag ttgaacacag 420

<210> 427  
 <211> 400  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(400)  
 <223> n = A,T,C or G

<400> 427  
 aattcggcac gagtgtttcc cctgatagcc tctgagtttc ttccggataa cactgcatca 60  
 acaatgctac tgagcaccaa ctgagggcag gatgcagaat gctggatggt gtaggaaata 120  
 taacagttaa gaccagggct gggattatag gcgtaagcca ctgcacctgg cccaaaatgt 180  
 tattttaaat tcttcacaat tacatttttt catttaaggg agggcaattt aaagagcaaa 240  
 tcatttgaaa gcttgatgc tncanangcg tattctgntc attttatggn ccattatgag 300  
 aaccaganag cttatcagcc tagtttgtaa gcangtttat gagnctgggg nttttaagct 360  
 cttcaaaaaa tgtttagngg atggtaaatc ccttaagaaa 400

<210> 428  
 <211> 420  
 <212> DNA  
 <213> Homo sapiens

<400> 428  
 aattcggcac gaggtgcctc taggggggtgc ataaatgcat atatatgtgc acatacacac 60  
 gtgcatgcat actcatgcgt acatatacac agccccccac cttgcctttt acagagccat 120  
 gaagcagcag atgcaaccga atactgtgca gcatgagcca cagacgttta cgggaagaac 180  
 cggcaggagg cgccgggaaa ctaaagggtc ccagctctct gagtgggtggc tttgccattg 240  
 tggctgtgcy agctcagcct cctggaaacc cgccctgagc ttgggttaaca agcattcact 300  
 ccaggtttaa cccagctcca ggttatcgca ggcaggactc ccgagaacag gttcatgttt 360  
 gctttttggg aagtgtgtgc ctaaaatgga aaacaccctg ggccgagtgg gacctcccag 420

<210> 429  
 <211> 413  
 <212> DNA  
 <213> Homo sapiens

```

<220>
<221> misc_feature
<222> (1)...(413)
<223> n = A,T,C or G

<400> 429
tatacgtctgc gcttttcgggt cccgcgcccc tcagatggtc tccaaggcaa agaagcgcgt      60
gctgctgccc acccgcccag cgcacccccc ggtggagcaa atcctggagg atgtgcgggg      120
tgctgccggc agaggatcca gtgttcacca tcctggcccc ggaaggtagg gggagcccgg      180
tcccggtgaa aagcggacct gagaccccg gacgaagggg acgggagaga agcacacccc      240
taactcctga cccacgccc tggtaacccc cgcaacatgg gcacggttcg tatcctctcc      300
gagtctccct ctactctccc gttaggtgag accgattttc agagggttct tctgacatgt      360
gtggaagccg ggcgctgtgg ttcangcctg taagcccanc acttttcnga agg          413

```

```

<210> 430
<211> 434
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(434)
<223> n = A,T,C or G

<400> 430
gccgcgatca caccactgca tgccagcctg ggcgacagag tgagaccctg tctcagaaaa      60
gaaaaaaaaa gtaaaaattg catgtaagtt gaccgcgact attcaaattt gtggtgttca      120
aggttcaact gtaatttcct agcagcattt tgtgtgtttg agaatctctt gacactcttc      180
aagtaaattc ctaaaattaca actttgacat caaaaaagct agacattcct acatttttgc      240
actacaatac ataaaaactc ccatgctgat cggttgtggg atcgtgcctg tgaataacca      300
ctgcactcca gcctgggcaa catagtaagt aagaccttgt ctcttaaaaa aaatacattc      360
tgaagaaagt tctacttatg aatacatttt atttataaca aactggngaa aatttttagac      420
caaaccatgt cttt          434

```

```

<210> 431
<211> 413
<212> DNA
<213> Homo sapiens

```

```

<400> 431
aattcggcac gagagcacag gtacatcagc tgctaacgcc tgcaagtgcc atctcaaaca      60
aagaggcaag cagtggctct gggccaaaat ctatgcaaga tggctgggtg ggtgatgata      120
tgccattgcc tggaaatcgc cccactggct ggggaagagga agaggatgtg gagattggaa      180
tgtggaatag taattcatct caagagctta actcatcttt aaattggcca ccatatacaa      240
agaaaatgtc atcgaagggt ctgagtggca aaaaaaagga gaagggaagg gtgtgttagcc      300
tttttactct ttctcctttg tttctactag taaaaatctt tagaaagcaa ctgcaaacat      360
ttatttaacc tctgctgtgt gccaggtact gtgcttggtg ctggggattc aaa          413

```

```

<210> 432
<211> 423
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(423)

```

<223> n = A,T,C or G

<400> 432

aattcggcac	gaggagcatt	gtaatgaagt	gtgggttctgt	aaattctcta	atgatggcac	60
taaactagca	acaggatcaa	aagatacaac	agttatcata	tggcaagttg	atccgggatg	120
taccccaata	tgagtgttta	tattacaaaa	ggggataatt	ttgaatctaa	ttcattgatt	180
acatattttt	aagtatatat	gtatcaatag	tattcttttc	taagagcatt	ttttatcatt	240
tttacatctt	catgtgttgt	atagataata	tatgtaagtt	aatattatca	acattgttga	300
gtgtttatgt	gctaacaata	atgttaaata	tgtgtatgca	ttatctaatt	taatatcttg	360
aaaaactctg	tgaggngcta	acatctcctg	cagtcagatg	aagaaactga	ggnagaaatt	420
aaa						423

<210> 433

<211> 398

<212> DNA

<213> Homo sapiens

<400> 433

agtttgtata	aggcttagca	cttccttgat	ttcatgcgtc	cactagggat	ctgggaaagt	60
attcctcttg	cataagggga	gactactgta	tgtctcttcc	caaattctgc	tgtatgggct	120
tcccaaaatt	caagctgtgt	ctcaagtcag	tgaaaatccc	aggctctgat	tagtctcttg	180
ctccttgggt	tgagctctgg	gaattccctt	taagcagtaa	ccctggccat	gtaggactc	240
acctccatt	gtagcctccc	agggtgctgt	gattacaggg	gtgagccact	gcactcagca	300
ggaaagcatt	gcatttttga	caatgcttta	ctagtaagaa	gtaatcagta	agtataaagg	360
tattgtaacc	tgtggtctgg	actcacctga	cagggtga			398

<210> 434

<211> 425

<212> DNA

<213> Homo sapiens

<400> 434

tgcccagcta	attaaaaaaa	aaattttttt	gtagcagttc	ggctctcatta	gtattgcccc	60
ggctggcctc	tcttagcttc	aagctatcct	ccgcctctgg	cctcccaaag	tgtctggaatt	120
acaggcataa	gccacaagcc	actgggcccc	gcctctttta	cctgtttcaa	aattgagttt	180
tattgagttg	taagagttct	ttattcattt	taaacacaag	tcctttgttg	gatatatctt	240
ttacatctat	ttttcccagt	ctgtggcttg	ccttttcatt	ttgaagagca	aaagttaaaa	300
attttgtgaa	tttattaaag	ctccgtttgt	tgttttttcc	tgttctagtt	tatacttttg	360
tatcatattt	taggaaattt	tgcactgggt	atttgatggc	tcctgaggag	gttcaacttt	420
cagag						425

<210> 435

<211> 386

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(386)

<223> n = A,T,C or G

<400> 435

aattcggcac	gagagttcct	gccgctaaga	tttccaggtt	tattgtttct	agctggtaat	60
ccccaggggg	ccccaaatcc	tgaaatgctt	tggccccctg	gattgcacaa	ccccccaaat	120
ggaaaggcag	ccaggaagac	atgtctgggc	aggctaagaa	ccctctatcc	ggagggagag	180
ggcaaatggg	ggcggacacc	aatctcacca	cttttgtctc	cttagtcacc	atccagggga	240

gactccacct	ctcatcaccc	caggtaagat	ggggcaacat	ggggctcagg	ggaacacgga	300
antgggtgtgt	gtgtgtgtgt	gtgtatgtgt	gtttgcacac	tggaaagaaa	agaactnaat	360
tcaccctcca	aacggcccca	tcacct				386

<210> 436  
 <211> 411  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(411)  
 <223> n = A,T,C or G

<400> 436						
ataaatttagc	tgacgtggtg	ggcacacctg	taatcctagc	tactcaggaa	gttgaggcgg	60
gggcatcact	tcaacccagg	agttcactgc	tttagtgagc	tatgaccata	ccactgtact	120
ccagcctggg	tgacagagca	agacctcatc	tctctctctc	tttttttttt	tttnaaacnn	180
agttttcccn	tgtcccccag	gttaaagngc	agggacccan	tntaagntna	nngnaantcn	240
ngcntaancc	tcttttaaaan	nnggaatnac	ngggngggnc	ccccnccccg	ggcnaatttt	300
ttantttttna	taangngggg	angnggggct	aaaagggcng	acctngnant	tngcncgcct	360
ngncncccca	angggccggg	nttaaaggca	ggagccccgc	ccctaccaa	a	411

<210> 437  
 <211> 471  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(471)  
 <223> n = A,T,C or G

<400> 437						
actccttnna	caagccactt	gctctctntg	cnggatccca	tcgnntcnaa	ttcggcacga	60
ggtgacatgc	tgtattggct	actccataaa	gtaggagtat	agatggaatg	gagaaagaag	120
caacctctga	gattccagtg	gtgtgtgggg	gcaagatctg	atggaaactg	acaaagagaa	180
cgaagactac	acaaagagaa	aggaaagaga	agaaacccta	aatgggcaaa	ggaaagcaca	240
tcctgtttgc	ggagctttga	aataattggaa	ccattttctaa	ttgctcctgt	ttttctgggt	300
aacaccagtt	ttctgtagtt	gccactaaag	cagtagactc	ttgagtctca	cttgtctctg	360
agagagacag	aagttagaaa	gttttgactt	ggcgattccg	aaagtatgcc	tttgttgga	420
cttaaattgtc	cagttagact	tcttggcacc	ttagagccct	ctgagatctg	g	471

<210> 438  
 <211> 418  
 <212> DNA  
 <213> Homo sapiens

<400> 438						
aattcggcac	gaggctcttt	ctaccagat	tacctcattt	aattatcata	gcaaccatat	60
gagggtgcagg	tcattactat	tttctcatt	ctataattga	ggtaactgag	gcacagagag	120
atttaaaaaac	ttgttccaaa	tcacacagct	agaaagttag	gtaaaccagg	atagtttgat	180
tctagagctt	aacttcctag	ctaagacatg	tgaagtcaag	tttctatgca	tcttttgagg	240
ggtgttgat	ttattttcag	gtctcctact	tgatctcact	gtatgcatta	cagaaatttc	300
ttgtttat	atgtgtttat	tttgagatag	ggtctcactc	tggtgcccag	gctggagtgc	360
agaggctcga	tctcttagct	cattgcaact	tcacacctct	gggctgaaat	gatcctcc	418

<210> 439  
 <211> 399  
 <212> DNA  
 <213> Homo sapiens

<400> 439  
 ccatgggggaa ttggttccag gatcctccac tgatgggtaaa atctgaggat gctcaagtcc 60  
 cttgtataaaa atggcatagt atgtatttgc atattaccta ctcacatctt cctgtataact 120  
 tttaaattatc tttagatcac ttatacctaa cacaatgtaa atactatgta aatagttgtt 180  
 atactgtatt tttcaatttg cattatTTTT attgtatttt atttttattg tttttttttt 240  
 gagtattttc tatttgagat tgggtggaatc tgcacatatg agggctggct ataaaggggca 300  
 ccacaaggaa gaagccaaac agaccagaa tgtgtgaaat tctacagagc aaattacctg 360  
 atttcttcaa ctaacaggta gcatgaaaat caaggggaa 399

<210> 440  
 <211> 409  
 <212> DNA  
 <213> Homo sapiens

<400> 440  
 aattcggcac gagacgacat ctttaagaac tgtaacactc accgcagagt ccacggcttc 60  
 attcttgaag tcagtgaagc caagaaccca ctggaaggaa ccaattgcgg acacaaaagc 120  
 agaagtaagc actccatttc aaccacatgt ggctttctct tcctactgca atttaagcta 180  
 aaatatgttg aagctgcttt acctcatttt ttatatcag cgaactttgt cggcatagtt 240  
 cataccctag ctccctgaag gcctagtatt tgccatctt tgccttgatg ttgccatttt 300  
 caaatcttct catcacacca atttcaattt tctgcattac cacttttcat ttctttgctg 360  
 cctttcagat ttggtggaaa cttttatatg aatttatcac tggggacga 409

<210> 441  
 <211> 394  
 <212> DNA  
 <213> Homo sapiens

<400> 441  
 ttttggtgct aggctttggg acgagattct ggggcgtaga tcttgggatc ctccttctat 60  
 agcctgtttt tcaatgggga tgtttgtctt ttctttaatg atctataaaa ggtgttcata 120  
 tattagtaca aacaatttca cccacacttt attacgcttt tggggagaaa gggcaagaaa 180  
 gtgttgtcag cccattttat tgactaatcc attctttccc cacttatttg agatgccagc 240  
 tttatcata actaaagtat tttatatgta tggatatgtt tggggatttt tgaatttagt 300  
 tctgtttcag gaatcttttg gttccagttc tagccactgc actccagcct aggtgacaga 360  
 gtgagacccc atctcaaaaa gaagagagag agaa 394

<210> 442  
 <211> 416  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(416)  
 <223> n = A,T,C or G

<400> 442  
 ccctcatgtg acagaacata ataagtagtg tatgtaggtc attgggctgc agtgttccat 60  
 gcagtcattc agagaccag gctgacagg gctctgccgt ctttaacatg tgactttcta 120  
 ggtcagtcac ctgggtcatt cttttccaca cagcagataa gacaaaggag tggaaataga 180



ggggtagaga	ttttctctta	aacgtgtgag	gctggagtg	tatgcttcat	tggcaagaac	240
ctggtcctag	cctgcctagc	tgaaaggagg	ggagtcaggg	agatgcactt	tgacagccaaa	300
attctgttgc	caagaagggg	aaagnagatt	tgggtggatt	ttgatctgng	gttgctgctg	360
tgtactctat	aattcaccat	gtctctggag	ggttaactat	gttgtaccaa	ttgatc	416

<210> 443

<211> 410

<212> DNA

<213> Homo sapiens

<400> 443

gtaaaatttg	cctatataat	ttcttgata	cacctat	cggtatcaag	gctatactag	60
caatgttttc	tttttttgct	ctgtggaaac	aaattgcacc	tgttgagggg	ttgggtgaact	120
tgacacccaaa	accatcttat	ctttctatgt	tttcatgggg	aaat	ctagtttttt	180
aataattata	agtcttacat	gttctcta	ttctcttgaa	tctgtttaat	ttttctccct	240
tgggaattgt	taagtgtaca	tgtattgtga	taactgctat	aattttgctt	ttattgattt	300
tttttgcttt	atatctgcta	caatttggtt	cctccaaatc	ccatgttgaa	atctgatccc	360
cagtgttgct	gggggatcta	ataacagggtg	tttgggtcat	gggaacaggc		410

<210> 444

<211> 419

<212> DNA

<213> Homo sapiens

<400> 444

aattcggcac	gagagaagcc	agatgcaagg	gaataaatac	tgtttgatcc	tgtttatgtg	60
aaat	atgtgaaagg	caaaactaac	ctatgctgat	ggagtaagtg	gttgccctaca	120
ggggtgaggc	ttgattggaa	aggtgctcta	gggaaatttc	caggatgata	ccccctttt	180
tttttcccaa	gacagggctc	cactctgtca	cccaggctgg	agtgtagtgg	tacaatcctg	240
gctcactaca	gcctcgaccc	aggttcaagc	aatcctctca	tctcaacctc	ctgggtacct	300
gggactacag	gtacaagccc	cacacctggc	taatcttttt	atgaaaattt	ttttgtagag	360
atgaaatctc	actatattgc	cagctggcac	aaactcctgg	gctcaagtga	tcctcctgc	419

<210> 445

<211> 411

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(411)

<223> n = A,T,C or G

<400> 445

aattcggcac	gaggcgga	ctgcac	gcagcgtctg	ggactcctct	ctgccaggat	60
gacccatgac	gctatgacaa	gagtactttt	cctgggagg	ggccttncat	cntgtnggct	120
ccccntta	gncngnntga	tctttaantg	aacatgggtct	tgccatca	taantgnctn	180
cacntgccct	tcaggcagat	gggatcatta	aagnaccctn	aacattgcct	gngettggt	240
acctggancc	tgaacgggaa	cgcgnaatca	ccattgcnat	ttcttg	at	300
ancaggacta	tgtgctatna	ttntnccca	ngaccagaaa	cttntnaaa	ncatgatata	360
gggacatctt	angctgctgg	cctgccta	ggtcttgctg	gngtngtga	a	411

<210> 446

<211> 418

<212> DNA

<213> Homo sapiens

<400> 446  
 cggcgggaga gtaaagggtg ttactatcgt taaaccaata gtttacggta atgttgctcg 60  
 gtatttttga aagaaaagag aagaagatgg gcacactcat cagtggacag tatatgtgaa 120  
 accatataga aatgaggata tgtcagcata tgtgaagaaa atccagttta aattacatga 180  
 aagctatggc aatcctttta gagttgttac taaacctcca tatgaaatta ctgaaacagg 240  
 atggggtgaa ttcgaaaata tcatcaaaat attttttcatt gacctaatg aaagacctgt 300  
 aacctgtat catttgctaa agctgtttca atcagacacc aatgcaatgc tggggaaaaa 360  
 gacagtgggt tcagagttct atgatgaaat gatattttcaa gaccacagc aatgatgc 418

<210> 447  
 <211> 419  
 <212> DNA  
 <213> Homo sapiens

<400> 447  
 aattcggcac gagcaagagc aagcccatga tgatgccatt tggtcagttg cttgggggac 60  
 aaacaagaag gaaaactctg agacagtggg cacaggtccc ctagatgacc tggtgaaagg 120  
 ctggaaatgg cgtgatgaga ggctggacct acagtggagt ctggagggac atcagctggg 180  
 agtgggtgtc gtggacatca gccacacctt gccattgct gcatccagct ctcttgatgc 240  
 tcatattcgt ctttgggact tggaaaatgg caaacagata aagtccatag atgcaggacc 300  
 tgtggatgcc tggactttgg ccttttctcc tgattcccag tatctggcca caggaactca 360  
 tgtcgggaaa gtgaacattt ttggtgtgga aagtgggaaa aaggaatatt cttttggac 419

<210> 448  
 <211> 391  
 <212> DNA  
 <213> Homo sapiens

<400> 448  
 aattcggcac gaggtggaat cagctgtgaa tgcagaaaga ggaggtgctg atcggattga 60  
 attatgttct ggtttatcag aggggggaac tacaccagc atgggtgtcc ttcaagtagt 120  
 gaagcagagt gttcagatcc cagtttttgt gatgattcgg ccacggggag gtgatttttt 180  
 gtattcagat cgtgaaattg aggtgatgaa ggctgacatt cgtcttgcca agctttatgg 240  
 tgctgatggt ttggtttttt gggcattgac tgaagatgga cacattgaca aagagctgtg 300  
 tatgtccctt atggctattt gccgccctct ccagtcact ttccaccgag cttttgacat 360  
 ggttcatgat ccaatggcag ctctggagac c 391

<210> 449  
 <211> 420  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(420)  
 <223> n = A,T,C or G

<400> 449  
 aattcggcac gagcctagtc ttaaactttt ttttttttta actttttaan cggangtnaa 60  
 aancnnnanc nnagacntan tangcnnngg cnnncncggg gtnaanaaaa nngggtttac 120  
 cntggccacc ttcnngttn gttnnnttg anggttttca ggagcanaan caccctngga 180  
 gccntcnttt cntgtgangg cagggcctgt ttttaaanac ctctgaagg atctggntga 240  
 ggcnntttta aagtnnactt ttttaaaaaa aantnaaaga agggggacnn tcaaatnctn 300  
 gatnaaaaac tngttncgg cggncgctg gnetcanncn nntaatccca gnnttttga 360  
 agggccaggc agnggtatcg cntnngnca gnattctaan acnancnngg ccccaatggg 420

<210> 450  
 <211> 411  
 <212> DNA  
 <213> Homo sapiens

<400> 450  
 aattcggcac gaggccgcct cctgccaagg aaacagtaat ccatgtaaaa gctcattttg 60  
 actatgaccc ctcagatgac ccttatgttc catgtcgaga gttaggctctg tcttttcaaa 120  
 aaggtgatat acttcatgtg atcagtcagg aagatccaaa ctggtggcag gcctacaggg 180  
 aaggggacga agataatcaa cctctagccg ggcttggtcc agggaaaagc ttccagcagc 240  
 aaaggaagc catgaaacaa accatagaag aagataagga gccagaaaaa tcaggaaaaa 300  
 tgtggtgtgc aaagaagaat aaaaagaaga ggaaaaaggt tttatataat gccataaaaa 360  
 atgatgatta tgacaacgag atcttaacct atgaggaaat gtcactttat c 411

<210> 451  
 <211> 403  
 <212> DNA  
 <213> Homo sapiens

<400> 451  
 gagagacttc ttctgcatc cttacatggt ggaagacaaa agagtggcag agaatgaata 60  
 tactcccagt ccattcgaga ggaagagacc ctcacctcat cacttccttg aggctcacc 120  
 ttctaatact atcaccttgg tgataagatt tcaacatagg aattagaggg gaatacatac 180  
 atccagacta ttgcagatgg gattatgtaa tactttgttc ctgtttggct tatttcttag 240  
 cacaatatct ttctggtatg tgcattgttc tgcaaatggc aagattttct tcctttttaa 300  
 ggctgagtaa taattcattg catgtataga ccacattttc tttatgcatt cattattagt 360  
 gagagttctt attacaaatg ggcgaaagtgg tttttaatat tga 403

<210> 452  
 <211> 408  
 <212> DNA  
 <213> Homo sapiens

<400> 452  
 tttagtaata agactttcag tttttttaat gttgacattt ccagatgttt catttagtat 60  
 ccaggggtct gtctggagac ttctagagag ggacagctca gaagtggagac ccttgagctc 120  
 tgggtgctgta agcttggtgca attaatgtga acagagcctg ggaatttctt tcctctgcac 180  
 agtcccttga tatttggaat ccaggttctg cccccaaccc ctaccacccc agtgggtctgt 240  
 taagatgtct cagatggggc tgggcttggg ggctcatgcc tgtactctca acactttggg 300  
 aagcaaaggc aggcagatca caaggtcagg agttcagcct aaccaacatg gtgaaaccgt 360  
 gtctctacta aaaatacaaa aattagccag gcgtgggtgg gcacacct 408

<210> 453  
 <211> 427  
 <212> DNA  
 <213> Homo sapiens

<400> 453  
 gaaaaacatc acagactttg aattctatag ccagagaaaa tatccttcaa aaatgaagg 60  
 aatgtgaaga tttccagtca tacagaaaac ttgaaagaac cccgccccct tagacctacc 120  
 caacaagaaa tgtgaaggga agttcttcgg gtggaaagac aggccagggt aagataagaa 180  
 tccacataaa agaataagga tccggaaatg gggatctaag tgaccctggc acaaactaac 240  
 aatatctttt aagatgaaca aaaaagacta ctcatctgag actcaggcca tggacactca 300  
 agtgagtgc ctataacact tcacagaaca tacaatcaga catcaggaac tggcatgta 360  
 ggctttttta tagttctaaa cttaaatacta catagaactt tgtgactgcc tgttattagc 420  
 tttagaa 427

<210> 454  
 <211> 417  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(417)  
 <223> n = A,T,C or G

<400> 454  
 aattcggcac gagtgacaac ttattccctg ctattatcaa ctaaagatca ccctttctac 60  
 tgctgtctct ggagcaggag ctggcaaact atggcctgct gtctgttttt gtacagtttt 120  
 actgaaacac agccatgccc atttgcgtaa ttgccccata tggttgcttt catgccctca 180  
 cagcaaaggc gagtagttgt gatggatcaa atggcccaca aagcctgaaa tatttactct 240  
 ttgacccttt acagaaaaaa accttggtga cccctgcttt agagaatgag aagccatgca 300  
 gggatcagtg atgccagagg aagggaagga actgcttnca gctattgnga caataataat 360  
 aataataata ttgggctttg actagaacgn gnaacatttn cagggggtct cacttgt 417

<210> 455  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

<400> 455  
 ggccggcaga catgcctgga gtgcagcttc gagatcccag acttccctaa tcatttccct 60  
 acttacgtac actgctctct gtgtcgctat agcacctgct gttctcgagc ttatgccaac 120  
 cacatgatca acaatcatgt tccacggaag agccccaagt atttggcttt gtttaaaaat 180  
 tctgtgagtg gaatcaagct ggccctgcaact tcatgtacct ttgttacctc tgtgggcgat 240  
 gctatggcca agcatttggg attcaacccc tctcacagat ccagcagcat cctgccacgg 300  
 ggactcactt ggatagctca ctcaaggcat ggccagactc gtgaccgagt gcatgaccgg 360  
 aacgtgaaga atatgtaccc tctcctctcc ttc 393

<210> 456  
 <211> 392  
 <212> DNA  
 <213> Homo sapiens

<400> 456  
 ggtacttcca agtacatata aaacaattag ccaatctgat gggtgagaga gactgcaata 60  
 caataataga ggactttgtc actccactct tagtaatgga cagattatcc aggcagcaaa 120  
 tcaacaaaga gacatcagaa ttaaactaca cagtagatac ggaaatcctt gaaaaaaata 180  
 ctagcaagct gaattcaaca acatattaaa aagatcagcc accacgatca agtagattac 240  
 tcctgaggag gcaaggatgg ttcgatatac acaaataaag aaatgtgata catcacatta 300  
 acataaccaa gaacaaaagc catatggttg gccagggtgca gtggctcatg cctgtaatcc 360  
 caacactttg ggaggccgag gcgggtggat ca 392

<210> 457  
 <211> 378  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(378)  
 <223> n = A,T,C or G

```

<400> 457
gagactagtc tggccaacat ggtgaaaccc catcgctact aaaaatataa aaaattagct      60
gggcatgggt ggcacgcct gtagttccag ctactcagga ggctgaggca ggagaatcgc      120
ttgaacccgg gaggtggagg ttgcagtggc ctgagatcgc accattgcac tccagcctgg      180
gcaacaagag cgaactctg tctcaaaaaa aaaaaaannng ggggggggnnt nanttgnggn      240
nagggttnga aancaccng nccaannngg gnaaccntn tntttantaa aantntaaan      300
ttaccaggc ttggtanccc ncccntgnaa nccnntnttt tnggnnggnt gnggcngnaa      360
aatcnntaaa nccngggg                                     378

```

```

<210> 458
<211> 418
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(418)
<223> n = A,T,C or G

```

```

<400> 458
caacaacgag tggacgctgg acaagctccg gcagcgggtc accaagaacg cgcaggacaa      60
gctggagctg cacctgttca tgctcagtgg catccctgac actgtgtttg acctggtgga      120
gtcggagggt cccaagctgg agctgatccc cgacgtgacc atcccgccca ttattgtcat      180
tgtcccanan annnnanntn agaggcttan tantnaagct nctngaantn aacncnccca      240
natctcntca tgnntttgat cctgttnnng annagtatat nnnttntcnc taatacggnc      300
ncnccntgat ntntaactat tcnctacant tttgnagatg agncngacta tctaccttga      360
annangaana atncnccgat catcttncnt ntctngntnn nnnnacnnaa tacctcaa      418

```

```

<210> 459
<211> 403
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(403)
<223> n = A,T,C or G

```

```

<400> 459
aattcggcac gagaagcact ctatcagatc cttgggatgc aaaggtaaatt aagacaaatc      60
ccttttacct aaagagctca ccatcaagtt gggggaggga aagtggaatt caaaacatgt      120
taataaatca tcatagtact gtgagataag tgcaattaag aagctagtta taaagtatag      180
gggaaataga ggagtaatca tgtctgaaaa gtcaggaaaag tcttcctaga ggtaattttt      240
aagctgattg ttttagaatt agtagaagct tgccagatgg aaaagtccag gcaaagtgtg      300
acatgaatgg gaaaggccac agtctagaaa tggcagagtg tgttcctagt tgtttgtttg      360
ttgttgtagc tgcttggtcc aggaaggatt taatgngggt att                                     403

```

```

<210> 460
<211> 409
<212> DNA
<213> Homo sapiens

```

```

<400> 460
aattcggcac gaggaaaaag ctttgaagag aaaaatggagg aagcagaaac cagaaacttt      60
aaatcttgag aaaagaagat tgtctatcat gaaggagatt ctttctgatc aataccagat      120
gcaagatgtg ttggagaaat ctgatcatct aatagctgca gcaaaagagc tgtttcctcg      180

```

taggcgcaca	gggtttccaa	atgtaacagt	ggctcctgat	tcctctcagg	gtcccattgt	240
ggtaaatcaa	gacctatca	cccaatctat	ctttaatgag	tctgtcatag	aacctcaggc	300
tcttaatgat	gtagatggtg	aagaagaagg	aactgttaat	agccagtcag	gagaaagtga	360
gaatgagaat	gagttggata	actctctaaa	ctctcagtct	aacacgaat		409

<210> 461  
 <211> 397  
 <212> DNA  
 <213> Homo sapiens

<400> 461						
ctcgcacgaa	agccgccgtg	gcgcaatgaa	ggtgaatgcc	ggcgcgctcg	ccggccgagg	60
tgggacagat	tcataacaca	gtgttctttg	tggcagtgaa	aaacttaatt	ttcaaccttc	120
tgatggagtg	ttggtgttaa	acctataatg	aagtgtttcg	taattgaaaa	ttttccagtt	180
atatcagaaa	gcttagtttt	cttttttctt	cttgggtgaag	tgttttgcag	gatctgtagc	240
ttttgggttt	gcatattagc	gtattttata	cattttgttt	ggccaggaga	attttgtcat	300
gtgggtttta	cctgatgatt	ttgtagatct	aaatgtgaca	acatcgatct	tagctgtttc	360
ttctttggct	cattttttccc	actcagtggt	tattata			397

<210> 462  
 <211> 411  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(411)  
 <223> n = A,T,C or G

<400> 462						
cacccagcta	tttttatatt	ttggatgggg	tctcactatg	ttgccctggg	tggtcttgaa	60
ctcctgagct	caaggaatct	tcccaccacg	gcctcccaaa	gtgctgggat	tacagccctg	120
agcctggcct	cactgtggtc	tgttttgaga	agcctttgtt	tttaaacaga	accacatgtt	180
ggtatttcag	agccaactct	tctgtcaaga	atccaaatca	gccaggcacg	gtggcatgcc	240
tgtgtagtc	cagcaattcc	agaggctgag	acagaaggat	catatgagcc	caggagtgtg	300
agatcagact	gggcaacata	gtgagactcc	atttctttag	aacaatacta	atcacatgag	360
ggtggtaggc	cattgcctgg	gctggacagg	tgagtagagg	gcangtgtgc	a	411

<210> 463  
 <211> 402  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(402)  
 <223> n = A,T,C or G

<400> 463						
aattcggcac	gagcctatct	caaaaaaaga	aaaaaaaaaa	cggcaaatga	tctgggtatt	60
tctcaaaaga	agacacacaa	atggccaaca	aatacattaa	aaaatgctca	acctcactaa	120
tcattcagga	aattcacatc	aaaatggcaa	tgaggatatca	tctcaccoca	gttgggatgg	180
ctattatcta	aaagataaaa	aaaaaaaan	ca	aaaatgcaaa	aaagggngaa	240
ctntntnncn	ctgttagggg	ggangtancc	tagtcaatcc	ctntagaaaa	cagganggaa	300
gcnctcaaaa	aanctccaaa	tanaactacc	ttntgatccn	ccangcccnc	tnntgggaat	360
ttnttcaaag	gaaaggaaat	tnctttgaaa	anacntctgc	cc		402

<210> 464  
 <211> 400  
 <212> DNA  
 <213> Homo sapiens

<400> 464  
 ctgcacgaa agccgccgtg gcgcaatgaa ggtgaaggcc ggccgcgctcg ccggccgagg 60  
 tgggacagat tcataacaca gtgttctttg tggcagtga aaacttaatt ttcaaccttc 120  
 tgatggagtg ttggtgttaa acctataatg aagtgtttcg taattgaaaa ttttccagtt 180  
 atatcagaaa gcttagtttt cttttttctt cttggtgaag tgttttgcag gatctgtagc 240  
 ttttggtttt gcatattagc gtattttata cattttgttt ggccaggaga attttgtcat 300  
 gtgggtttta cctgatgatt ttgtagatct aaatgtgaca acatcgatct tagctgtttc 360  
 ttctttggct catttttccc actcagtggg tattataaca 400

<210> 465  
 <211> 411  
 <212> DNA  
 <213> Homo sapiens

<400> 465  
 ctgaagcggc gcatacggaa aggacgcatg gaatacctcg tgaaatggaa gggatggctcg 60  
 cagaagtaca gcacatggga accggaggaa aacatcctgg atgctcgctt gctcgcagcc 120  
 tttgaggaaa gggaaagaga gatggagctc tatggcccca aaaagcgtgg acccaagccc 180  
 aaaaccttcc tcctcaaagc gcaggccaag gcaaaggcca aaacttacga gtttcgaagt 240  
 gactcagcca ggggcatccg gatccctac cctggccgct cgcgccagga cctggcctcc 300  
 acttcccggg cccgggaggg ccttcgaaac atgggtttgt ccccgccagc gagcagcacc 360  
 agcaccagca gcacctgccg cgcagaggcc cctcgggacc ggaccgagaa t 411

<210> 466  
 <211> 413  
 <212> DNA  
 <213> Homo sapiens

<400> 466  
 gagacaccat ctccagattc ccattccactt cctcaccgcc gtgaacttgg agcatccaga 60  
 gatgctggag aaagcgtccc gggagctgtg gatgcgcgtc tggtaagggt tgagtgtggg 120  
 gctctgggaa tcctctggga ggaccttggg tgactttctg accttcccca ggcacgtttt 180  
 cagggtcatg atcctgcccc cgcggggggg atctactgtc ctcccagtc caccctctc 240  
 cccgcaccgc ctctctgtg tcttctcttc tcccagaat gaagacatca ccgagccgca 300  
 gagcatcctg gcggctgcag agaaggctgg tatgtctgca gaacaagccc agggacttct 360  
 ggaaaagatc gcaacgcccc aggtgaagaa ccagctcaag gagaccactg agg 413

<210> 467  
 <211> 422  
 <212> DNA  
 <213> Homo sapiens

<400> 467  
 aagaaacctt gaaggtcggg cctcaagtag gtctctttct agatgcagtc gtttttggag 60  
 gagaagactt tcgagccagc atagggtgca caagtagtaa agaaacctg gatattctct 120  
 acgcccggca aaagattgtt gtcatagcga aagccttttg tctccaagcc gtagatctgg 180  
 tgtacattga ctttcgagat ggagctgggc tgcttagaca gtcacgagaa ggagccgcca 240  
 tgggcttcac tggtaagcag gtgattcacc ctaaccaaat tgccgtgggc caggagcagt 300  
 tttctccttc ccctgaaaaa attaatgtgg ctgaagaact gattgtctgcc tttaaagaac 360  
 atcaacaatt aggaaagggg gcctttactt tccaagggag tatgatcgac atgccattac 420  
 tg 422

<210> 468  
 <211> 407  
 <212> DNA  
 <213> Homo sapiens

```
<400> 468
aattcggcac gagctcagat ttttaaatgg tctctacaac aaattgtcac ttgttggggtt      60
caattaagtg ctcatgtat aagtgcacat ggtacaaatc aacaccagct tataggattg      120
tggaagaagt taagagatga atttagtgat cttatatacc ctgtcagttg gtcataattgt      180
ggaagagctc tacaaaactt actgtactgt taactccaag attttcttcc aataacaggg      240
atgctagcca gatatttaat aatcaaagac caaaaatggc agttaatttt ttctacccaa      300
tatectatgg catatgaatg atccaaattt gaagctccaa ggataggaaa aagcttactt      360
gtgectgtcc tagacaagtc tagagtttat attgaaatca aaacttc                      407
```

<210> 469  
 <211> 405  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(405)  
 <223> n = A,T,C or G

```
<400> 469
aattcggcac gaggggggcat ggatgcaaga ggattggaga tgagggggccc tgtccccagt      60
tcaagaggcc ctatgactgg tggaaattcag ggtcctgggc ccattaatat aggggcaggt      120
ggccctcctc agggaccag acaggcccc ggcatttcag ggggtgggaa tcctggagct      180
ggtatgcagg gtacaggcat acaagggaaca ggcattgcacc ggagcaggca tacaaggagg      240
agggatgcag ggggcaggca tacaaggagt cagtatacaa ggaggaggta tacaaggagg      300
aggtatacag ggggcannca ngcaagggtg aagccagcct agcagtttta gtccctgggca      360
gagccaggtc actcncagg atcaggagaa ggcanctttg atcat                      405
```

<210> 470  
 <211> 396  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(396)  
 <223> n = A,T,C or G

```
<400> 470
cggcggcagc ttcccggggg gccggttcgg gtctccgtcc cctggcggtc accctggctc      60
ctactccagg tccccgcgg ggtcccagca gcaattcggc tactccccag ggcagcagca      120
gaccaccccc cagggttctc caaggacatc tacaccattt ggatcagggc gtgttagaga      180
aaaaagaatg tctaattgagt tggaaaatta tttcaagcct tcaatgcttg aagatccttg      240
ggctggccta gaaccagtat ctgtagtggg tataagccaa caatacagca atactcaaac      300
attcacaggc aaaaaaggaa gatacttttg ntaacattnt ctgaaatnca actggaagct      360
tcatgtgtca tgaacatctt ggacnaaact ttttaag                      396
```

<210> 471  
 <211> 409  
 <212> DNA  
 <213> Homo sapiens



<400> 471  
aattcggcac gagcttacat gaacaaggta gagctggagt ctgcctgga agggctgacc 60  
gacgagatca acttcctcat gtaagcttca tccacatcct tcttgatgag gacaaattcg 120  
ttctccatct ctgtacgctt attgatctca tctcactact tgttcttgaa gtcctccacc 180  
agcccctgca tgttgccaag ctccgcctcc agcttcagct tctcctggcc cagagtctcc 240  
agctgccgcc taagggttgtt gatgtagctc tcgaacatgt tgtccatgtt gcttcgagcc 300  
gtcttctgct gctgcaggag gctccacttg gtctccagca tcttggtctg ctgctccagg 360  
aaccgtacct tgtctatgaa ggaggcaaac ttgttgttga gggctctga 409

<210> 472

<211> 397

<212> DNA

<213> Homo sapiens

<400> 472  
aattcggcac gaggcattgca atgatgctac ctgttctgac ccatcatatc cgctaccacc 60  
aatgcctaata gcatattggac aagttgatag gatatacttt ccaagatcgt tgtctgttgc 120  
agctggccat gactcatcca agtcatcatt taaatttttg aatgaatcct gatcatgcca 180  
ggaattcatt atctaactgt ggaattcggc agcccaaata cggagacaga aaagttcatc 240  
acatgcacat gcggaagaaa gggattaaca ccttgataaa tatcatgtca cgccttggcc 300  
aagatgaccc aactccctcg aggattaacc acaatgaacg gttggaattc ctgggtgatg 360  
ctgttgttga atttctgacc agcgtccatt tgtacta 397

<210> 473

<211> 408

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(408)

<223> n = A,T,C or G

<400> 473  
aattcggcac gaggcgaggg cctggacgta gtgtcttcaa cagttgtaac agcagctgcc 60  
atthtctgaa tgacagcatg tgtcacacac tctgctgagt attacaggca tttttttcta 120  
atacaaatgc cccaagtgc aggagagctt tggcgggcgc tcagacctca ccacgcacca 180  
gcaagatcac ctaggcaagc ggccataccg ctgtgacatc tgtggcaaga gcttcagcca 240  
gagtgccacg ctagctgtgc atcaccggac ccacctggag ccagcaccct acatctgctg 300  
tgagtgtggg aagagcttca gcaacagctc cagctttggc gtgcatcacc gcacccacac 360  
aggtgagaga ccttatgagt gcactgagtg ngggcgagcc ttcacgat 408

<210> 474

<211> 429

<212> DNA

<213> Homo sapiens

<400> 474  
caattcggca cgaggggtgag cgagtgtgtg gctttcatgg gcctcttctt tatgaagcaa 60  
agtgtgtaaa ggttgccata aaggacaaac aagtgaataa cttcatacat tacagtgggt 120  
ggaataaaaa tgctgtgagg ccaggcgct ctgaaaaatc tttgaagaca catgaggata 180  
ttgtagccct ttttctgtt cctgaaggag ctccctcagt acaccacccc ctctgacct 240  
ctagttggga tgaatgggtt ccggagagca gagtactcaa atacgtggac accaatttgc 300  
agaaacagcg agaacttcaa aaagccaatc aggagcagta tgcagagggg aagatgagag 360  
gggctgcccc ggaagaaga catctggtct gcaacagaaa aatgggtgaag tgaaaacgaa 420  
aaagaacaa 429

<210> 475  
 <211> 405  
 <212> DNA  
 <213> Homo sapiens

<400> 475  
 aattcggcac gaggaactat ctagtagctg gttccctccg aagtttccct caggatagct 60  
 gggacagcag ctgctgctgt ggaaaggcca gctggcaaga tgatggaaga aatctccatt 120  
 atggtagcct atgacgcccc tgttttcagc cagctgcacg atgaagactt ctcactagt 180  
 ctggtggcca tcagcaagcc cagggtctatg gtaccaacca agaagctgaa gaaatatgag 240  
 aaagaatatc agacaatgcg agagagtcag ctgcaacagg aagacccaat ggatagatac 300  
 aagtttgtat atttgtaggt aactccagct gttgcattta tactgggaat cttcataaga 360  
 agctgagaga aagagagggg aaaaagaaag tggctttcta ctttc 405

<210> 476  
 <211> 426  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(426)  
 <223> n = A,T,C or G

<400> 476  
 aattcggcac gaggagtcgt cgggggtttcc tgcctcaaca gtgcttggaac ggaacccggc 60  
 gctcgttccc caccgccgcc ggccgcccat ttgcagcctt gtnncaanat tgncccaanc 120  
 tctcnaaaan aaaaaaaaaa cntnaantt ttttttttc cnnggangna aantttttta 180  
 aaaaaaanat tnnntcnta ccaaaantaa annngnantn aantngtttt tnnngaangn 240  
 nnnnnaaana nngcctntng gnttnannaa nnaccnnttn nttaangnct ttnttttaaa 300  
 agggngganc tttnaanttn cnnaaaangg aaaatggntt ttttttnaaa antgggggtt 360  
 tttnttttna nctaggnnaa antttgtaan ggcnttggtt tttttaaaaa ttctgganaa 420  
 tttttt 426

<210> 477  
 <211> 421  
 <212> DNA  
 <213> Homo sapiens

<400> 477  
 aattcggcac gaggtggagt gacggtcaca ccgcggcgaa ttaattccca aagactcatg 60  
 ttacatgaga aagccaccaa gaagaccaa gaaaaggaga caaggatggc tcttcctcag 120  
 ggatgcttga ctttcaagga tgtggctata gaattctctt tggaggagtg gaaatgcctg 180  
 aaccctgcac agagggttt atacagggcc gtgatgttgg agaactacag gaacctggag 240  
 tctgtggatg aagtcttgct cttttgtcca ggctgggggtg cagtggcgtg atctcggctc 300  
 acggcaacct ccacctccca ggattgactt ctaaggactc ttggtacatg aggaagaaac 360  
 ccggaagggg aagaggaaaag caaaggcgctc aggaatgggtt cttctcagat ggggcctcgc 420  
 t 421

<210> 478  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature

<222> (1)...(401)  
 <223> n = A,T,C or G

<400> 478  
 aattcggcac gaggttgtgt tcatgtagga cccaaggggtg actgtaaaca tgataggagc 60  
 gctgggacat tgctactgag gcagacagca gccactagtc cacaatgggt taaaaagtca 120  
 gtcctgtcat gtttacagtc acccttgggt cctaaattaa cagttgngtt catgnaggtt 180  
 cgtgncgtcg ttggctctga gacattgata ataaattttt ctcaacagng aaaaaaaaaa 240  
 ataaannnta aaaaaaaaaa aatncccgcc cntnaaaann ntagggggnc ttttncgaa 300  
 aacccccct ttnnnaaaac ctengngngn nngncncnc cccccctna atgccgggaa 360  
 aaaaancntt ttttnaaaan ntengngnnn ctttnnttt t 401

<210> 479  
 <211> 402  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(402)  
 <223> n = A,T,C or G

<400> 479  
 ccaagacagt gcactagatg atgaaagatt ggcataaaaa ctgcaagagc acagagctaa 60  
 aggagtgtcg attccattga tgcataagc aatgcagaag tggattaca aagatcctca 120  
 gggagaaaatt caaggcaagt tgctcctttt tcttttaaat actgaagtgt gtgccattac 180  
 ctccagaatc tctaagaagg gatttgttta atttaaatga tagtagaaaa agaagtcaac 240  
 aagcacacac gcgcgcacac acgcagacta gaagtgtttc tgatttcaga tgtttttaga 300  
 tttcttccca attttggaat aattgcattg tcataccagt tgagcatccc taatctgaaa 360  
 atccaaantc cataatgctc tattgaatgn ttcctttgtg tg 402

<210> 480  
 <211> 405  
 <212> DNA  
 <213> Homo sapiens

<400> 480  
 aattccgttg ctgtcggttt cattatataa aaggaacatc ttcccatagc atattctatg 60  
 aaaggggttt cattccaagt tgagttttca aaaaaagggt cttcctaaag ctaccatttt 120  
 caaccgtcct tggtatctag tacaacataa ataacagtct taaaaattgc actaatacca 180  
 gtgccccctt ggctctccaa atctgttctt tgctcttgta tctgctggac gcttgaagac 240  
 aggtgcactg tctcgtatgt atttgaatta tgaacagtaa tttctaata attctaaaat 300  
 ggtcattgta agtgaaagcc tctcgtacc acttctctt ccaactacat aaatatattt 360  
 caatgtattt ccagtttttg gaaagttttc aatacataca tcaag 405

<210> 481  
 <211> 418  
 <212> DNA  
 <213> Homo sapiens

<400> 481  
 aattcggcac gagagcatatc acatgcatgc atgcatgagt gtatacacac agtaatgcat 60  
 actagttaaa cactcacatc attttaatta ttacttttgg ctaggattta ttgaagcata 120  
 atttactaaa gcttctccag aagccactaa ctccaaaaga cagaatcaca atacagggca 180  
 tatgctgagg gcctctgggt tgggccaaaga atttcagact gggcgccatg accaagggca 240  
 atctgcagtc actcaagagt acttgggaaga ttgatttagc agtgggtgctt ggaacagact 300

gggccaggaa	gggctataag	cagggagagt	cattttaaag	ttatagtatt	gatttaggat	360
cagggtgaaa	aggaactgaa	gtggagcaag	gtgagacagg	aaggaatgga	ggactctg	418

<210> 482  
 <211> 409  
 <212> DNA  
 <213> Homo sapiens

<400> 482						
gcgggcgccgc	ctcctgctcc	tcccgtctgt	gctgccgctg	ccgccctgag	tactgcctg	60
cgcagctccg	gccgcctggc	tcccatact	agtcgccgat	atttgaggat	cttacaacat	120
ggcagacatt	gacaacctgc	ctagggtagt	taaaagacga	gtgaatgctc	tcaaaaacct	180
gcaagttaaa	tgtgcacaga	tagaagccaa	attctatgag	gaagtccatg	atcttgaaag	240
gaagtatgct	gttctctatc	agcctctatt	tgataagcga	tttgaaatta	ttaatgcaat	300
ttatgaacct	acggaagaag	aatgtgaatg	gaaaccagat	gaagaagatg	agatttcgga	360
ggaattgaaa	gaaaaggcca	agattgaaga	tgagaaaaag	gatgaagat		409

<210> 483  
 <211> 410  
 <212> DNA  
 <213> Homo sapiens

<400> 483						
aattcggcac	gagacaccag	atcctgaaag	gggttaaate	tactttgaaa	tgaatctgca	60
atcagtatct	caaagctttt	ctggtaattt	tagtgatctt	atttgattag	actttttcag	120
aagtactaaa	taaggaattt	taacagggtt	ttattaatgc	acagataaat	agaagtacag	180
tgaggctctat	agccatttta	ttaaaatagc	ttaaaagttt	gtaaaaaaat	gaatctttgt	240
aattacttaa	tatgttagtt	aagaacccgt	caagcttata	tttgctagac	ttacaaatta	300
ttttaaatgc	atttatcttt	tttgacacta	ttcagtggaa	tgtgtaagct	agctaattct	360
tgttttctga	tttaagcac	ttttaaatct	tatcctgccc	cctaaaaaca		410

<210> 484  
 <211> 425  
 <212> DNA  
 <213> Homo sapiens

<400> 484						
aattcggcac	gagagtcaat	ccaaatgatt	tcagagacct	gactttgctg	tttgaccact	60
ctcagctttt	tggtatcaga	ctcccttcac	tggtcccaa	aaactccagg	gccatgtttc	120
tggaacagtg	gaaagcaggg	aaatagaaat	ggggcctcag	gaattagaaa	taaggctttg	180
gcattcaaat	gtcgcaccta	gcatgctgtg	actagcgata	agtgtgcaag	gagtgttgaa	240
gcagtaggaa	gacttggtgt	gaggcggggc	aggggatggg	ggtgagggac	ctgcagagag	300
accagggcct	tcctgaaggg	ctctgccctt	cccggctggc	aggggccacc	tggggctacc	360
aacaggatac	tgtgcttctc	cagtaggtcc	cacccctcc	aggacagaga	ccctggtgga	420
ggaga						425

<210> 485  
 <211> 412  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(412)  
 <223> n = A,T,C or G

```

<400> 485
gaacaggtgg tggtcaccaa tcccttctgg gatgctgagg tgatccggcc cctacccatg      60
gacagcagtg cctattcctt caccggccttt gtgggagtcg ctgccgtcga gttctccttt      120
atggaggacg accaggccta cccattcctg cacacaaagg aggacactta tgagaacctg      180
cataaggagc tgcaaggcgg cctgcccggc gtggcccatt cgaggcatca ccgacaaatt      240
ccncacnagt gactnatnac ctgngtgnca tcnactatgc gggagacact ttcttcgana      300
angacacaaan ntccatcctt ntaaaaanng acggaatggn gaatatannn atatcgcaan      360
ctccnmatca nctggttgga atgaaaaggc ttacaatgaa agnttgntgg cc              412

```

<210> 486

<211> 488

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(488)

<223> n = A,T,C or G

```

<400> 486
ccctatacaa gctcttgntt ntggagctcc atccantanc tncngttnng ngaggctata      60
tcctttcaca cccatcaggc actgtgaagt aagcaggaag acaacctgag gttgtctctt      120
tactttgagt tcctacataa taaattgcag cctaatttag tacataaacc caaacctaatt      180
ttaggagtaa attttttgta gcagatagcc agatttcagc caatcacagg cttccagcta      240
acaagactat gcccaaataa ggcaaatgcc tcatcacatg atgctcaaat aaggcagcca      300
cctaggcgag gccaatcagg taacttttct actttgctta attgtcagcc tgacaaattt      360
gctgcttatg actgctgagc agagctgcta aacctcttct ggtttggagt gctgccttat      420
atatgaattg gtcttttggtc acataaaatt gggtaaattt aacttctcta aaggtttgna      480
ttaaattg                                488

```

<210> 487

<211> 413

<212> DNA

<213> Homo sapiens

```

<400> 487
aatcggcac gaggaacaaa gacacaacat accagaatct cttggacaca ttaaaagcag      60
tgtgtagagg gaaatttata gcactgaatg cccacaagag aaagcaggaa agatccaaaa      120
ttgacactct aacatcacaa ttaaaggaac tagagaagca agagcaaaca cattcaaaag      180
ctagcagaag gcaagaaata actaagatcg gagcgaacag aaggatcctc tagaagagcc      240
taaagcaaag aagcacaaaa aatcaaagaa gaaaaagaaa tccaaagaca aacaccgaga      300
ccgcgactcc aggcattcagc aggactcaga cctctcagca gcgtgctctg acgctgacct      360
ccacagacac aaaaaaaaga agaagaaaaa gaagagacat tccagaaaat cag              413

```

<210> 488

<211> 420

<212> DNA

<213> Homo sapiens

```

<400> 488
gccaagttgt tggactcaca gggaaagggtg accaagtgggt tcaataactc tgcagcttcc      60
ctgacaatgc ccaccctgga caacatcccg ttcagcctca tcgtgagtca ggacgtggtg      120
aaagctgcag tggctgctgt gctctctcca gaagaattca tggtcctgtt ggactctgtg      180
cttcctgaga gtgcccatcg gctgaagtca agcatcgggc tgatcaatga aaaggctgca      240
gataagctgg gatctaccca gatcgtgaag atcctaactc aggacactcc cgagtttttt      300
atagaccaag gccatgccaa ggtggcccaa ctgatcgtgc tggaaagtgtt tccctccagt      360

```

gaagccctcc gccctttgtt caccctgggc atcgaagcca gctcgggaagc tcagttttac 420

<210> 489

<211> 414

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(414)

<223> n = A,T,C or G

<400> 489

cgacatcaga	agatcattga	ggaggcccca	gcgcctggta	ttaaatctga	agtaagaaaa	60
aagctgggag	aagctgcagt	cagagctgct	aaagctgtaa	attatgttgg	agcagggact	120
gtggagttta	ttatggactc	aaaacataat	ttctgtttca	tggagatgaa	tacaaggctg	180
caagtggaac	atcctgttac	tgagatgata	acaggaactg	acttgggtgga	gtggcagctt	240
agaattgcag	caggagagaa	gattcctttg	agccaggaag	aaataactct	gcagggccat	300
gccttcgaag	ctagaatata	tgcagaagan	cctagcaata	acttcatgcc	tgtggcaggc	360
ccattngcgc	anctctctnn	cctcgagcag	acccttccac	caggattgaa	actg	414

<210> 490

<211> 430

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(430)

<223> n = A,T,C or G

<400> 490

aattcggcac	gagaagacga	tcagataccg	tcgtagtctc	gaccataaac	gatgccgacc	60
ggcgatgcgg	cggcggtatt	cccatgaccc	gccgggcagc	ttccgggaaa	ccaaagtgct	120
gggattatag	gcgtgagccg	ccacaccg	cctcaaataa	ctatgtttta	ttcactttta	180
gtatagtagg	ctctggaatg	gaatgtatct	ttgccactcc	tagactgttg	cccctgaagt	240
gttctaacat	acattcgtaa	tcattgcaacc	accacctcca	ccatccgcat	cagaactctt	300
tcattagctc	tctgttgcc	accactccaa	accatagcag	ttgggcacct	gcaccttctg	360
aatggcagcc	tttttggtta	tcctgntgcc	cttccctaaca	tgtactttgc	tccttttctc	420
ctggcgagaaa						430

<210> 491

<211> 411

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(411)

<223> n = A,T,C or G

<400> 491

aattcggcac	gaggggtgtt	cagactgagc	ttcctgcctg	cctgtacccc	gccaacagct	60
tcagaagaag	gagcagcccc	tgggtgcgtc	cactttctgg	gcacgtgagg	ttgggccttg	120
gccgcctgag	cccttgagtt	ggtcacttga	accttgggaa	tattgagaga	aacattagaa	180
tcattgccct	ttagaagagc	agaactatga	tgccctcctg	cagggatgga	acgaggcatt	240

ccatgcagat	gacaacccaa	agagagcaag	agtggctcta	tttatatcag	acaaaatcga	300
ctttaagtca	aaaactgcac	aagagacatt	aaagtatat	atataatgaa	aaaagcatca	360
atccccatga	agatataaca	attattaata	tatgcnctca	tatcagagcc	c	411

<210> 492  
 <211> 410  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(410)  
 <223> n = A,T,C or G

<400> 492						
tccagatgta	ccttgaatac	tgttgagagc	tagtcagatg	aatgagactg	gcctgccacc	60
tagcatctgc	acatgaggta	ttcttctaca	ctgatttttc	atacaggtgt	gctagatttt	120
aatgggtcac	ttaaattcag	ttagtctcca	acatataaat	tctccacaac	ataggatata	180
gtatacactc	tacttgacct	aagatgataa	aactgaaaaa	gacaaaaaaa	aattttattg	240
ccataaatta	atccagtagg	tatatttgag	aaagcacgca	tcagttggtt	agggcaataa	300
gcgcctctac	cacgttgcca	tgtgggccnt	tgnacngggg	tctgctgctg	ntcgagatat	360
ctccatctca	ancatctgca	gaaaaaaatc	atggtacata	gggtccaggc		410

<210> 493  
 <211> 432  
 <212> DNA  
 <213> Homo sapiens

<400> 493						
atcattttaga	ggcagaagtt	aagttctgca	aggaggaact	ctctggaatg	aaaaataaaa	60
tacaagtagt	tgtgcttgaa	aacgaagggc	tccagcaaca	gctaaaatct	caaagacaag	120
aggagacact	gagggaacaa	acacttctgg	atgcatccgg	aaacatgcac	aattcttgga	180
ttacaacagg	tgaagattct	ggggtgggcg	aaacctccaa	aagaccattt	tcccatgaca	240
atgcagattt	tggcaaagct	gcactctgctg	gtgagcagct	agaactggag	aagctaaaac	300
ttacttatga	ggaaaagtgt	gaaattgagg	aatcccaatt	gaagtttttg	aggaacgact	360
tagctgaata	tcagagaact	tgtgaagatc	ttaaagagca	actaaagcat	aaagaatttc	420
ttctggctgc	ta					432

<210> 494  
 <211> 386  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(386)  
 <223> n = A,T,C or G

<400> 494						
aattcggcac	gaggctgctc	cagctgagga	gaagaaagtg	gaagcaaaga	aagaagaatc	60
cgaggagtct	gatgatgaca	tgggcttttg	tctttttgac	taaacctctt	ttattgaaca	120
tgttataaaa	gaggtttagt	caaaaaaaaa	aaaancncgn	ccctttaaan	ctatagggng	180
ncgtnttncg	taaanccann	cntganaaaa	nncntngnnn	agttnggnca	accncannt	240
aaaangcngg	gaaaaaaaang	ctttnttngg	naaattnggn	aggctntngn	tttnttngaa	300
nccnttntaa	ncngcannaa	ncaagtnanc	ancancaatn	gcnttcnttt	tntgttttag	360
gtncnggggg	ngggggggga	gttttt				386

<210> 495  
 <211> 407  
 <212> DNA  
 <213> Homo sapiens

<400> 495  
 aattcggcac gagagacagt cttactgacc tttatgtcca acatgcaata ccattgcctc 60  
 agaggggattt gccgaagaat agatggggga aaatgatgga aaagaaaaga gaacaacatg 120  
 agattaaaaa tgagactaaa aggagtagca ctgtagatgg gttaaggaaa agaccctca 180  
 tcgtatttga tggaagttca acaagtacaa gcataaaagt gaaaaagaca gagaatggag 240  
 ataatgatcg actgaagcct ccccgagcagg caagctttac cagtaatgcc tttagaaaat 300  
 tatcaaattc ctcttcgagt gtttcacccc taattttgtc ttccaatttg cctgtgaaca 360  
 ataaaacgga acacaataat aatgacgcta aacagaacca tgactta 407

<210> 496  
 <211> 413  
 <212> DNA  
 <213> Homo sapiens

<400> 496  
 aattcggcac gaggtacacc ctatatattt ctgttcagta tccattcact agttcttcat 60  
 ttataaatat catcttcccc attctgctgc tgaatgccac acatccatcc agtctgagaa 120  
 agtgagagag gcaatcatgc caagaacaag ccagcaaagc tctttcacca gatgtagact 180  
 gtagccctgc tgccttccct ccagcgagtc tgccagcatg cttcttcctc ctttttatat 240  
 gttctttgtc tctacttcc ctgtcttcca acatactgtt cacttactct ggcagtcttt 300  
 ctgcttttca ttaagcctca aaatctcttc tgttctactt ggcaccacaa gctatgccta 360  
 tatatgtatt tctgacttgg caggatagtt caagggtcgg cagtttttat tta 413

<210> 497  
 <211> 412  
 <212> DNA  
 <213> Homo sapiens

<400> 497  
 aattcggcac gaggagagag ctaagcactt tccactgcat gctaggatat agggcttgca 60  
 acatagaccc agccctacag ccgtcacccc agctggggca ggcagctcct aggcgctctc 120  
 tcctgacctc tgggcagcca gtcacaaag cagagagacg tggcgccatg tggcgagcat 180  
 gccaggttc cttgctgact cagcacttat ttctgtagtt ttaaaaaaga atttaagtgt 240  
 tttggttgta tttttttggg ggggagaggg tgggcaaaaa catgggggta gttctgagtt 300  
 gttagaaatg tttctgaatc aagtttgttt gaagacacgt gtgcctttgt acccattata 360  
 agatggtcat aagaccaag aactgataag ctttggtttt tttttttgtt tt 412

<210> 498  
 <211> 398  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(398)  
 <223> n = A,T,C or G

<400> 498  
 aattcggcac gagcagcaac caaccagagc agttcgactg ggccatcaat gaccgcatca 60  
 atgagatggg ccacttcgac ctgccagggc aggaggaacg ggagcgcttg gtgagaatgt 120  
 attttgacaa gtatgttctt aagccggcca cagaaggaaa gcagcgcttg aagctggccc 180



atttgcgtna	tttgnnaann	ncnaanccnn	ggcgtntgac	caaanncacc	aagttcgtgc	240
gggacatgat	tcgggaggtg	tgtggctttg	ccccgtacna	gcggngcnc	atggagttac	300
tgaaggtctn	caggacaaac	ggccctnaaa	tttatcaaga	aaaggggtggg	gacncacatc	360
cgtccaagag	gaacgggagg	agctgagcaa	cgtctggc			398

<210> 499

<211> 397

<212> DNA

<213> Homo sapiens

<400> 499

ggttcaaata	gataaattgg	aatgaggggt	aatcagaagc	taacagggca	gattagcatc	60
caagatggag	ttgctttggc	ctctagatgg	ggcatcctgt	gcaatttgct	aaggtgctta	120
tttggttttc	tctggtccta	agttggaagc	aggggcaaaa	ttaaagaaac	tgtcattcat	180
tcatttcctg	acgattctgg	gccaattggt	acacaagtta	ttgttttagct	tcctggattg	240
tcactaaaga	aagcaatctg	gtttcctgca	attctgactt	acagcaggct	gatctcctgg	300
gttggtttatt	gttgatgagg	gtgttggttt	ctcgggcagc	ttgctgcagg	ttgtgggtcg	360
aattttcta	tttacatatg	gcatggccac	tgccatt			397

<210> 500

<211> 416

<212> DNA

<213> Homo sapiens

<400> 500

aattcggcac	gaggcagcac	atatactaaa	attggaacga	tacagagaag	attagcatgg	60
cccctgcgca	aggatgacac	gcaaattcgt	gaagcgttcc	atatttttca	aggagctcac	120
agtatagtag	gggagacaaa	gagatatttg	gagaacaatg	agataagtcc	tgggtgtgat	180
ataacagcat	agataagggc	catctaacc	agtctgggtc	aagagggaa	aatgagttag	240
aagtcttaaa	atggaagcct	tgagatggaa	gtaaagtagg	tgtttgccag	gtagacagga	300
aaaggacatt	caaaagagaa	ggaatacgat	gggcaaagtc	ataaaggcaa	gaaaaagcac	360
agtacagtgt	ttcattttaag	gaactgcaaa	ttgtttttta	gctgaagaat	tagatc	416

<210> 501

<211> 426

<212> DNA

<213> Homo sapiens

<400> 501

agaagatcat	taagagagtg	attgctcttg	aaggagatat	tgtcagaacc	ataggacaca	60
aaaaccggta	tgtcaaagtc	ccccgtggtc	acatctgggt	tgaaggtgat	catcatggac	120
acagttttga	cagtaattct	tttgggccgg	tttccctagg	acttctgcat	gcccattgcca	180
cacatatacct	gtggccccc	gagcgttggc	agaaattgga	atctgttctt	cctccagagc	240
gcttaccagt	acagagagaa	gaggaatgac	tgcatgaatc	tacctgagtt	gctggcattg	300
ggaggccagt	tactggaaa	gaatggaaaa	aagaagcctc	caaaagggaa	aaacttctga	360
caatatgatg	ctgtgcgaga	aatattttaca	gcacattaaa	acgatctgta	ttattaaata	420
aataat						426

<210> 502

<211> 426

<212> DNA

<213> Homo sapiens

<400> 502

ctgacatgtg	ccctgaaaga	aggcgatgtc	actattggag	aagatgcacc	aaatctttct	60
tttagcacca	gtgtgggaaa	tgaggacgcc	aggacagcct	ggcccgaatt	acaacagagc	120

catgctgtta	atcagctcaa	agatttgttg	cgccaacaag	cagataagga	aagtgaagta	180
tctccgtcaa	gaagaagaaa	aatgtccccc	ttgaggatcat	tagaacatga	ggaaaccaat	240
atgcctacta	tgcacgacct	tgttcatact	attaatgacc	agtctcaata	tattcatcat	300
ttagaggcag	aagttaagtt	ctgcaaggag	gaactctctg	gaatgaaaaa	taaaatacaa	360
gtagttgtgc	ttgaaaacga	agggctccag	caacagctaa	aatctcaaag	acaagaggag	420
acactg						426

<210> 503

<211> 470

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(470)

<223> n = A,T,C or G

<400> 503

tttgactcct	tntacaagcn	acttgctntn	tngcnggatc	ccatcgantc	naattcggca	60
cgagcggaca	ctgggtgaaca	aggaagatcc	ccccaagag	ctgccagctg	ctgagcctgt	120
tctcagccca	ttggaaggca	ccaagatgac	tgcgaataat	ctgcaccctc	gagtcactga	180
ggaggacatt	gttgagcttt	tctgtgtgtg	tggggccctc	aagcgagctc	gactgggtcca	240
tcctggggta	gcggaggtgg	tgtttgcgaa	aaaggacgat	gccatcaccg	catataagaa	300
gtacaacaac	cgggtgcctcg	caggggtgaac	tctgcctcct	ctgtgaccac	gcagcccaca	360
gaattcaaaa	tcaagctttg	agcaggggag	tgaggcacca	aaagtggggg	cagaggaggg	420
tggtctctgt	tcccaaggcg	aagcttatga	ccaatgngcc	atctgactgg		470

<210> 504

<211> 434

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(434)

<223> n = A,T,C or G

<400> 504

ggtgggttgg	ttggggcgag	gaggacgggg	gcgcgcttcc	cataacatta	ccctggctga	60
gcgtgaggct	ccagggtcgg	gcaccggggt	gacctcttat	tcctcgctga	gggcatcggt	120
accgcctgtg	gctgcaagcc	gaggcgcgcg	ggtggaaact	gggtcgaggt	ctgggtagac	180
gtctgagcga	tctgcacaag	gagtggcgca	gtctggaatt	tgattgagga	ttcctaacgc	240
cctccgcttg	atgttctggg	gattcccggg	ggctcggctt	cggaggaagg	caccaagaaa	300
ctgataatgt	tcctttgaat	tggtctctgt	atctgcttca	tcaatgtctc	tcatactgaa	360
tatcttaaga	gagatgctgg	aatatcttgg	cgcttcctgta	gaacaggntt	tgctgatttg	420
ggaaaataaa	gact					434

<210> 505

<211> 399

<212> DNA

<213> Homo sapiens

<400> 505

aattcggcac	gagcctagac	atcatctacc	agccacaggc	tatcttcaga	gtccgggctg	60
tgactcgctg	caccagctcc	ttggagggtc	acagtgaggc	agtcatttct	gtggccttca	120
gccctacggg	aaagtacctg	gccagtggct	ctggagacac	caccgtgcgc	ttctggggtc	180

tcagcacaga	gacaccacat	ttcacatgca	agggacacag	acactgggtc	cttagtatat	240
cctggtctcc	agatggcaag	aagctggcct	caggctgcaa	gaatggccag	attctcctct	300
gggacccaag	cacagggaag	caggtgggca	ggaccctcgc	tggccacagc	aagtggatca	360
caggcctgag	ctgggagccc	ctccatgcga	accctgagt			399

<210> 506  
 <211> 414  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(414)  
 <223> n = A,T,C or G

<400> 506	
agctgcagaa gctgcacagt gagatcaagt ttgccctaaa ggtcgacagc ccggacgtga	60
agaggtgcct gaatgcccta aaggagctgg gaaccctgca ggtgacctct cagatcctcc	120
agaagaacac agacgtggtg gccaccttga agaagattcg ccgttacaaa gcgaacaagg	180
acgtaatgga gaaggcagca gaagtctatn cccggctcnc nngagagcnn nncagacaac	240
tgtggggaac gctgngctgt ntgnanttgg tcccttgggt tttttttnct gcctaattta	300
tgttattncc aaccaacatg anctgactat aancgggttt ttaatnaaaa aaaaananaa	360
aaacnncnnc ccttttnatn tttntgnngg ngnttcngt ccccgcnntn taaa	414

<210> 507  
 <211> 397  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(397)  
 <223> n = A,T,C or G

<400> 507	
aattcggcac gagcccacct cccagcccgg aggccatgac agcctggtgg accgctggat	60
ccgcagccgc ctgacagagg ctgtgaggct cagcaatcaa ggcttccagg cctacgactt	120
cccggccgtc accactgccc attagatatg ttgnatnana antatgaaga catggaacgt	180
gaagaaaacg gagataatac tatttncact ggtctgttgt acagtgaggc tgacanatgc	240
ccantatgtc ttaattgtct attaaaaaag gaagttgntt tnncnaaaag tgcattnttg	300
actttggatn aattgnattc nttaangggc angnggcttt tccataagtt atttganttn	360
ttcnttatat cacctttgtg gaanaaccan atnaaat	397

<210> 508  
 <211> 485  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(485)  
 <223> n = A,T,C or G

<400> 508	
tttgaanccc cttnnaaagcn cttgntttga tgccnntccc atcgattcgg tttgctagaa	60
aacctaattg ggagtgcgag gcagagaacg ttcagcacct ttgttccctc cgaaccctcg	120

ggacagagggc	aggggttctga	gggcagggat	tccccctcgt	cttggcccca	ccgccccgggc	180
tgggcactaa	actcggggccg	cggcggggcg	agcgaggcgg	gctccggagg	gagctgacgc	240
ctgatgatgg	cgcagtcctaa	catgtttacc	gtggctgatg	tgttgagtca	agatgaactg	300
cgcaaaaagc	tataccagac	gtttaaggat	cggggtatac	tggatacact	caagacacaa	360
cttcgaaaac	agctaattca	tgagttgatg	caccctgtat	tgagtggaga	actgcagcct	420
cggtcatttt	cagtaaaaag	ggagctcctc	ttaataggcg	cctctaactc	tttagtggca	480
gatca						485

<210> 509

<211> 414

<212> DNA

<213> Homo sapiens

<400> 509

aattcggcac	gaggggtgttt	gtgaatcgcg	ttccatcctc	gtcctttgtg	cctctctgtt	60
tgctgtgctt	ggggggctgg	caagattccg	gataagggga	actggtgggc	tggaaagagg	120
catgcggtgg	ccctcaagag	ccagaagaat	gactgctaac	tggcgcctgg	gggacctatc	180
ccgccgtaat	tgtggtgcta	gagccgcatt	gtgtcctttg	cctcgggtcca	accttttgag	240
accttttcacg	gctctagcct	tggttgggag	ccgaggggaag	gagtttggga	atgtttggct	300
ctgtgtaaca	atgaaataat	tcattggtga	tgctctctgg	ccggagtctg	taaagataag	360
gtgcatttca	gaacattgca	actcctgcgg	agggtttttag	gtaacgtgaa	atgg	414

<210> 510

<211> 401

<212> DNA

<213> Homo sapiens

<400> 510

tatcgcctcta	cccaggcggg	ggtgtcgcgc	tacgttccaa	ttggggccgt	accatggcgg	60
agaagactca	aaagagtgtg	aagattgctc	ctggagcagt	tgtatgtgta	gaaagtgaag	120
tcagaggaga	tgtaactatc	ggtaagaaat	agtttattta	ctgtttttca	agaattgatg	180
tgatttaatac	tatttttagtg	ctttacaatt	agataccgtc	ttccatgttt	atttcaactga	240
tgctcctagtt	ttattgacaa	aataatgcat	tttctcctat	gtgtttaaat	ttctgaaaga	300
atgtagtggtg	atggaggctg	tgtttaaact	cctatctgaa	ataactaatga	ggctgtataa	360
caaagtcatt	catgtattta	agagagatct	gttgtgacct	g		401

<210> 511

<211> 402

<212> DNA

<213> Homo sapiens

<400> 511

ctgaaggatg	cagttgaggt	tgatccaggt	ttatccgaat	atgctacctt	tctgagcctt	60
aaaccttcat	ctctcagggt	ttgattttct	tctgatagct	tcattcatttc	tcctgaagt	120
cttttacact	cttctgttag	tttccttggt	tcagtatcat	gaagtgaagc	actgtgtggt	180
tgtggcggtg	gcccattctg	cttataacct	acagtgggac	agctttgctg	ggttccatgt	240
cattcaattt	atcattttca	ttggggatct	ccatttggaa	tccattaatt	catgaggttt	300
tgccctcatc	cacacagctt	ccatatctga	agtgtttagt	ggagcaaaaa	ttgtaccata	360
aacttggtgt	tactcttttc	attcggatca	taagtcaaag	gg		402

<210> 512

<211> 415

<212> DNA

<213> Homo sapiens

<400> 512

tttagatggt	ccagagtcct	cagagtccat	gaaaggactc	acagtggaga	aaagccctat	60
gaatgtaaac	aatgtggtaa	agccttcaaa	tattctagta	acctatgtga	gcatgaaaga	120
actcacactg	gagtgaacc	ttatggatgt	aaggaaatgtg	gtaagtcgtt	tacttcttcc	180
agtgcccttc	gaagccatga	aaggactcat	actggagaaa	aaccctatga	atgtaagaaa	240
tgtggtaaag	ccttcagttg	ttccagttcc	cttcgaaagc	atgaaagagc	ttatatgtgg	300
taaaaaacia	caacaacaaa	acacctctgt	caatgtaaga	agtgtgttaa	agctttcagt	360
tattctagtt	tcattagaac	accgtgaaaa	aattaaaaaac	tcaaattaga	gagaa	415

<210> 513

<211> 392

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(392)

<223> n = A,T,C or G

<400> 513

aattcgccac	gaggttcggt	tgaaggattc	tgtgtgctgt	cggacccaga	gggtgacggc	60
gccgctagga	tgaagctcgt	gagatttttg	atgaaattga	gtcatgaaac	tgtaaccatt	120
gaattgaaga	acggaacaca	ggtccatgga	acaatcncag	gtgtggatgt	nnncatgaaa	180
ncccatntta	cnnctgcnat	ncngancntg	acttaancct	atatcttcnn	cntttngctt	240
tgctcatttt	nnagntnntn	ntttctcntt	ctnttattcn	cctctctnta	ttccnncnna	300
cctcttcttn	gnnttttnacn	atncctttca	ncctctaata	tnntctcttn	tnagatntnc	360
ttctnctctc	ncntttnttc	ntnntcntgt	tt			392

<210> 514

<211> 421

<212> DNA

<213> Homo sapiens

<400> 514

aattgccgcc	gacgctgctt	cagcttattc	cttgtggcct	ctgcgggtcc	tgccctcaacc	60
atgatgatcc	acggcttcca	gagcatccac	cgggatttct	gcttcggggc	ctggaagctg	120
acggcgctcca	agaccacat	catgaagtcg	gcggatgtgg	agaaattagc	cgatgaatta	180
catatgccat	ctctccctga	aatgatgttt	ggagacaacg	ttttaagaat	ccaccatggg	240
tctggctttg	gaattgacgc	tcaatgctac	agatgcgtta	agatgtgtaa	acaactacca	300
acagaatgct	taaagtggcc	tgtgctgaag	agtggcaaga	aagcaggacg	gaggggtgaac	360
actccaaaga	ggttattaaa	ccatatgatt	ggacctatac	cacagattat	aagggaacct	420
t						421

<210> 515

<211> 423

<212> DNA

<213> Homo sapiens

<400> 515

aattcgccac	gagacgacgc	agtggccctg	aagtctgcag	acattgggat	cgccatgggg	60
cagacagggg	cggacgtcag	caaagaggcc	gccaacatga	tcctgggtgga	tgatgacttc	120
tcagccatca	tgaatgcagt	ggaggaaggc	aagggtattt	tttacaacat	caaaaacttt	180
gtccgattcc	agctgagcac	gagcatctcc	gccctgagtc	tcatcactct	gtccaccgtg	240
ttcaacctgc	ccagccccct	caacgcatg	cagatcctat	ggatcaacat	catcatggat	300
ggggccaccg	cgcagagctt	gggggtagag	cccgttgaca	aagacgcctt	caggcagcca	360
ccacggagtg	tgcgggacac	catcctcagc	agagccctca	tcctgaagat	cctcatgtcc	420
cgc						423

<210> 516  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(393)  
 <223> n = A,T,C or G

<400> 516  
 ccgcagggcc gtaggcagcc atggcgccca gcccggaatg gcatgggtctt gaagccccac 60  
 ttccacaagg actggcagcg gcgcgtggcc acgtggttca accagccggc ccggaagatc 120  
 cgcagacgta agggccggca agccaaggcg cgccgcatcg ctccgcgccc cgcgtcgggt 180  
 cccatccggc ccatttgcgt catttcgcaa tttnaannnn nccncctntt ttttnntngg 240  
 aannanacnt ttttngtttt ttaaaaaaaaa nttnaaaaaa aaaatattgg gggggggttta 300  
 aaaaaaaaaa annccntttt nnnannngga aaaaanttgt ttttttttat taaanacncn 360  
 ccnnantttc taananaana nnngnagccc ttt 393

<210> 517  
 <211> 387  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(387)  
 <223> n = A,T,C or G

<400> 517  
 gccgcttcag cgggggacgt agccatgaag gaagagaagg agcacaggcc taaggagaag 60  
 cgagtaaccc tgtaaaccc cgccggggcc acaggcagcg gtggtgggac ctccgggggac 120  
 agctccaagg gggaagataa gcaggatcgc aacaaggaga agaaagaagc gctgagcaag 180  
 gtggttaattc gaagattacc tcccactttg accaaggagc agcttcagga acatcttcaa 240  
 cctatgcctg agcatgatta ttttgagttt ttttctaata atacgagttt gtatcctcat 300  
 atgtatgcc a gacatacat caactttaa aaccaagagg acattatttt gttcagggat 360  
 cgctttgatg gntatgtatt ccttgac 387

<210> 518  
 <211> 415  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(415)  
 <223> n = A,T,C or G

<400> 518  
 aattcggcac gagcttaaca tttcttatag tgtttgttgg tgatgaattc tttcagcttt 60  
 ttattttattg tttgagagtc ttgctctgtc acccaggctg gaggtgcaatg acacaattat 120  
 ggctcactgg agccttgacc ttccaggctc aagcaaacct ccagggtca gctcccaag 180  
 taactgagac tccaggcgtg tgccactatg cttggctatt tttgtatttt ttttagagac 240  
 aggttcttac tatgttgccc gggctggtct cgaactctga ggctcaagcg tctgccacc 300  
 tcagccttaa agngettcca gcttttatgt gtctgaaaat atctttattt cacttcgcta 360  
 aaatatattt tcatcacaca taaaattcta aggttgcagg ttttgccttc agcac 415

<210> 519  
 <211> 408  
 <212> DNA  
 <213> Homo sapiens

<400> 519  
 ccgctgctca caccttttcta ctgaagcatc ctgatgacga aatgatgaag aggaacatgg 60  
 catattataa gagcctgcct ggtgccgagg actacattaa agacctggaa accaagtcac 120  
 atgaaagcct gttcatccga gcagtgcggg catacaacgg tgagaactgg agaacatcca 180  
 tcacagacat ggagctggcc cttcccgaact tcttcaaagc cttttacgag tgtctcgcag 240  
 cctgcgaggg ttccagggag atcaaggact tcaaggattt ctacctttcc atagcagatc 300  
 attatgtaga agttctggaa tgcaaaatac agtgtgaaga gaacctcacc ccagttatag 360  
 gaggctatcc gggtgagaaa tttgtggcta ccatgtatca ttacttgc 408

<210> 520  
 <211> 416  
 <212> DNA  
 <213> Homo sapiens

<400> 520  
 aattcggcac gaggggtgggc acacacaagg gcttcgtgca gatctgggac gcagccgcag 60  
 ggaagaagct gtccatgttg gagggccaca cggcacgcgt cggggcgctg gcctggaatg 120  
 ctgagcagct gtcgtccggg agccgcgacc gcatgatcct gcagagggac atccgcaccc 180  
 cgccactgca gtcggagcgg cggtctgcagg gccaccggca ggaggtgtgc gggctcaagt 240  
 ggtccacaga ccaccagctc ctgcctcgg gggggcaacg acaacaagct gctgggtctgg 300  
 aatcactcga gcctgagccc cgtgcagcag tacacggagc acctggcggc cgtgaaggcc 360  
 atcgcttggt ccccatca caccgggtgc tggcctcggg gggcggcaca actgac 416

<210> 521  
 <211> 411  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(411)  
 <223> n = A,T,C or G

<400> 521  
 aattcggcac gagggccacag ccgggtcacg tggccggttg ccccccata gttgctgget 60  
 ggggggcagt cagggtgacg ttccgtccga cctgccgagt ggccaggcta cctcagtcac 120  
 ctgtgtggtc cnantgctnn catggacctg ggacctatgc ncaagagnna ccgcggggac 180  
 cnagaggcat ttgaggagac tcatntgacc tcccttgacc cagtgaacaa gtttctgccc 240  
 tggtttgagg aggtctgttca gtgtcctgac ataggggaag ccaatgccat gtgtctggct 300  
 acctgcacca aagatggaaa accctctgct cgcattgtgc tgctgaaggg cttcnggaaa 360  
 gatggcttac gcttttctact aacttcgaga gtcgaaaagg aaaagagctg g 411

<210> 522  
 <211> 451  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(451)  
 <223> n = A,T,C or G

```

<400> 522
tttgnntncc tttnnccanc cnntcgcann ancatatgct tgtctcaaag attaagccat      60
gcatgtctaa gtacgcacgg ccggtacagt gaaactgcga atggctcatt aaatcagtta      120
tggttccttt ggtcgctcgc tccctccta cttggataac tgtggtaatt ctagagctaa      180
tacatgccga ggggcgctga ccccttcgc gggggggatg cgtgcattta tcagatcaaa      240
aaccaaccgg gtcagccct ctcggcccc ggccgggggg cgggcgcgg cggtcttggt      300
gactctagat aacctcgggc cgatcgcacg cccccgtgg cggcgacgac ccattcgaac      360
gtctgcctat caactttcga tggtagtcgc cgtgcctacc atgggtgacca cgggtgacgg      420
ggaatagggg tcgattccgg agagggagcc t                                     451

```

<210> 523

<211> 413

<212> DNA

<213> Homo sapiens

```

<400> 523
aattcggcac gagtagaggt taatgggggt gacctgagga actccagcca cgaagaagcc      60
atcacagccc tgaggcagac cccccacaag gtgcggctgg tgggtgtatag agatgaagca      120
cactaccggg atgaggagaa cttggagatt ttccctgtgg atctgcagaa gaaagctggc      180
cggggcctgg gcctgagcat cgttgggaaa cgaaatggaa gcggagtgtt tatttctgac      240
atcgtgaaag gcggagccgc agacctggat gggagattga ttcagggaga tcagatctta      300
tctgtgaatg gggaggacat gagaaatgcc tcacaggaga cagtggccac catcctcaag      360
tgtgcacagg gacttgtgca gctagagatt ggaagactcc gagctgggtc ctg                                     413

```

<210> 524

<211> 410

<212> DNA

<213> Homo sapiens

```

<400> 524
agacagctga acttaatcat ctaaagcaac aggtacaaca gctacaagtc ttgttgctac      60
aggcccatgg aggtaccctg cctggatcta taactgtgga accatcagag aatctacaat      120
ccctgatgga gaagaatcag tccctggtag aggagaatga aaaattaaat cgtgggtctga      180
gcgaggcagc tggctagaca gccagatgt tggagaggat cattttgaca gagcaagcga      240
atgaaaaaat gaacgccaag ctagaagagc tcaggcagca tgcggcctgc aaactggatc      300
ttcaaaagct agtggagact ttggaagacc aggaattgaa agaaaatgta gagataatct      360
gtaacctgca gcaattgatt acccagttat cggatgaaac tgttgcttgc                                     410

```

<210> 525

<211> 474

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(474)

<223> n = A,T,C or G

```

<400> 525
tttaatccct tngaaatccc cgccnttttg aggatcccnc cnattcgaat tcggcacgag      60
attcgttgac aaaaacaatg accttttcta tcgagacctg tcccaagcca tgtggaaggg      120
cagccatgcc ctcacaaagt ctttgttccc cgaagggaat ccgcgaaga tcaacctgaa      180
aaggcctcct acagcaggct cacagttcaa ggcatccgtg gccactctga tgaaaaacct      240
acagaccaag aacccaaact atattaggtg tatcaaaccg aatgataaaa aagcagcaca      300
catcttcaac gaggtcttag tgtgtcatca gatcaagtac ctggggcctt tggagaacgt      360
tcgagtgcgg agggcaggct acgccttcag gcaggcctat gaaccttgcc tataaagata      420

```



caaaatgctt tgtinnactaa catggctnat tggaatggac cagcaggtct ggtg

474

<210> 526

<211> 406

<212> DNA

<213> Homo sapiens

<400> 526

gacaagtcgg	gcgctgctgt	ctgtgaattc	tttttgaaag	ctgcctgcgg	caaagggggc	60
atgtgtccgt	ttcgccacat	cagtggtag	aagacagttg	tgtgcaaaca	ctggctgcgt	120
ggcctatgca	agaaaggga	ccagtgtgag	ttcctgcatg	agtatgacat	gaccaagatg	180
cccagtgct	acttctactc	caagttcggg	gagtgcagca	acaaggaatg	tccttcctg	240
cacatcgacc	ccgagtccea	gatcaaggac	tgtccttggt	atgaccgtgg	cttctgcaag	300
cacgggtccc	tctgcaggca	ccggcacaca	cggagagtca	tctgtgtgaa	ttacctcgtg	360
ggattctgcc	ggagggggccc	tcgtgtaaat	tcatgcccct	cgattt		406

<210> 527

<211> 410

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(410)

<223> n = A,T,C or G

<400> 527

aattcggcac	gagcccgcgg	cgtaggcaag	accagcctga	tggagcgctt	caccgacgac	60
accttctgcg	aggcctgcaa	gtccaccgtg	ggtgttgact	tcaaaatcaa	aactgtagag	120
ctaagaggaa	agaaaattat	attacagatc	tgggacacag	caggtcagga	gagattcaac	180
agcattacct	cagcttatta	cagaagtgcc	aaggggatca	tattagtata	tgatatcact	240
aagaaggaga	catttgatga	tttgccgaaa	tggatgaaga	tgattgataa	gtatgcttca	300
gaagatgcag	agcttctctt	anttgaaat	aagttggact	gtgaaacgga	cagagaaatc	360
accaggcagc	agggggaaaa	gtttgcacag	cagatcactg	ggatgcgggt		410

<210> 528

<211> 385

<212> DNA

<213> Homo sapiens

<400> 528

ccagtcccca	tgggctgaag	gcaggttgag	ttcttcccca	ggtctgcgag	cctcgaaggc	60
ttctttcaga	cagcagaccc	cttagaagcg	caaggctgct	ttctgacaaa	gaatcaagtg	120
ttcctttcaa	ccagccaagg	gactggtttt	ctcgctgacc	ctttgacagc	tccagccggt	180
ccctccgttc	gaggtccttg	acttcctgca	acagactgag	atggccttct	gagcttttcc	240
agggtgacg	accaccttct	tgataccttc	ccctctctcg	ttctgaatcc	gtgcccacca	300
gacggactct	agctcttggt	gccagactg	gggtgcaatg	gcgcaatctt	ggctcaccat	360
aacctccgcc	tcctgggttc	aagcg				385

<210> 529

<211> 382

<212> DNA

<213> Homo sapiens

<400> 529

gggatgcctc	cctctaagaa	catgacactg	agatgatcaa	ggttctaaaa	gggcgatcat	60
------------	------------	------------	------------	------------	------------	----

atcactctcc	gaaaatgaaa	ctgctcagac	agaatgacaa	ttaaattaat	aacaaccaag	120
acactgccc	gatttcatct	cgttcacag	ccccctctgt	gtgctgtatg	atcaggttct	180
tgggggtggc	tccagatata	gcaaacagtc	aggattaatc	cacaagagtg	agctgtcagc	240
atgaggttcc	cctacagtgg	agcttgccaa	ggtcctgtggc	ttccagggca	cccgttccag	300
ggctaacaga	tgaagcatgg	aaatgctgtg	tggagtgagc	tgacaccatt	ctcaggagaa	360
aacagacaaa	tcctctgccc	ct				382

<210> 530

<211> 401

<212> DNA

<213> Homo sapiens

<400> 530

gaacagtcta	aggttttag	gacttgcgtt	ccacctacca	aagctaatac	agttagaagg	60
ctccaaactg	agggtgcatt	tctcattacg	gtgggtgagag	gacgggacca	cacactgtga	120
agtcttcggt	cccacatccc	acacttcatt	cttgccgcct	aagttgtcgc	cgtgggacta	180
ttgaaaggg	atcagcgata	ttcatctttc	ctataaatgg	gatctgcttt	ctacagtttc	240
ctgccagatg	tgtaaagatt	gcaagaattg	aaggattttc	ttcaactgaa	gacctttaca	300
gatactcaga	tgactgaaat	cctcttatca	ctggctggac	atggtggctc	acgcctgtaa	360
ttccagcact	ttgggaggct	gaggcagaat	catcattctg	g		401

<210> 531

<211> 387

<212> DNA

<213> Homo sapiens

<400> 531

cccaggcctg	gggcccgggtg	gaagtcctac	tgacaacccc	accaggcca	gggtcgaatc	60
tggaatggga	gggtctggct	tcagctatca	gggcaccctc	cccagggtt	ggaaacggat	120
gacgggcctc	taggcgggtc	tctgccacga	gcagtttctc	attactgtct	gtggctaagt	180
ccccctccctc	ctttccaaaa	atatattaca	gtcacaccat	aagcacaaac	caggtccag	240
ggtcaccctg	taggagcaaa	ttcctttag	ttcaaattgt	atgagggcgt	ggccacatca	300
gcacttagga	gaggctctgc	acaggctcac	ctcagagccg	accctccaga	gcaacttttc	360
tgttgtgaag	aggctgggtt	tctgagt				387

<210> 532

<211> 400

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(400)

<223> n = A,T,C or G

<400> 532

gccttgtgcc	cggccctgtt	cacttcagg	cagcctcagg	agtaccctgc	tcaggcctca	60
tctgctagga	tgagccgacc	tgggagaagc	aaacgcttgg	gatattttgc	acagacagct	120
tggcagctgg	gtgatgggag	gggctgggca	acgtggcctg	ggcacaggca	agtaggggaa	180
gtgtctccca	gtctgagatg	cattgtctgt	cccagcactt	caccaacctt	ggtgtcctg	240
gctagagacc	actggggaag	gtggtattgc	catagtttct	tggttcagg	actcaggagc	300
ctcagctggg	gcccagaag	gggtctgtgt	ggaaagcagg	cacccaaagt	ctggggaggt	360
cctggggatg	ggcctgggaa	caagccagca	tggnaccttc			400

<210> 533

<211> 387

<212> DNA  
<213> Homo sapiens

<400> 533  
gccttgtgcc cgccctgtt cacttcaggg cagcctcagg agtaccctgc tcaggcctca 60  
tctgctagga tgagccgacc tgggagaagc aaacgcttgg gatattttgc acagacagct 120  
tggcagctgg gtgatgggag gggctgggca acgtggcctg ggcacaggca agtaggggaa 180  
gtgtctccca gtctgagatg cattgtctgt cccagcactt caccaacctt ggtgctcctg 240  
gctagagacc actggggaag gtggtattgc catagtttct tggttcaggg actcaggagc 300  
ctcagctggg gcccaagaag gggctctgtg ggaaagcagg cacccaaagt ctggggaggt 360  
cctggggatg gcttgggaac agccagg 387

<210> 534  
<211> 379  
<212> DNA  
<213> Homo sapiens

<400> 534  
gcttcagaag ggcttatttt aaagggaatg gaaagcattt cagttgtagg aagttaacag 60  
ctgtgccaaag caaatgtgtt ttctcaagtt tcagaaaatg ctacagttga gagagatgca 120  
aaaccagggt tttagttaaa ctaggcagac ttttttgctt tgttttggtt ttttacttta 180  
catacttcat gcaaatctca cttagccagt cttcagaagc cagtcttgaa tcagtgtcca 240  
cagctgtagc agatcagtaa tttaactgct ttttagcttc tggaaatccc ttgactgggt 300  
cagctgacta tgcagtcatt tatgagaaac atctgaacac catagttaca agacagcagt 360  
atccattcaa caatccaaa 379

<210> 535  
<211> 383  
<212> DNA  
<213> Homo sapiens

<400> 535  
cccttttgaa ggagatcagt tgctccctct ctctttctta gtgtttctca gcaagactat 60  
ttaacattta aggccgtagg cattaagaat ccagggatct gtgttttaga gctgaatgtc 120  
cttctccaag ccaagctcag agccaaagct ctcaacagct gaaataacctg cttgctctat 180  
tctttttaac cagtgcagca gtgcttcctt ctaggataac agagctcttc tcatatatc 240  
cattgactgt tgaaatctca gtaagggaaa cacttttcaa aatgtcttgt tatggaaagg 300  
attggggcaa ataaatatat ttctgttgga aagtaacgtg tacttttact gaaggatagc 360  
ttctctacta cagctactgt ttg 383

<210> 536  
<211> 376  
<212> DNA  
<213> Homo sapiens

<400> 536  
aagaggctct gcacaattcc atcgaggcat ccttgccgtc caacaacctg gtgcccaggc 60  
ccatcttttc ccagctgtac ctggaagctg agcagcagct tgccgctcta gaagggtgga 120  
gccgagtggg caatgaggaa gaggaagaag agggagaagg agggctggaa acaaatggcc 180  
ccccaacccc tttccagctg caccctctgc ctgaaggatg ctgtaccaca gacgggtttt 240  
gccaggccgg gaaggacctg cgcttgtct ccatttccaa cgagcccatg gatgtccctg 300  
cgggctttct cctcgtggg gtcaagtcce ccagcctgcc ggaccatctc ctggtgtgag 360  
ccgttgacaa gaggtt 376

<210> 537  
<211> 383

<212> DNA  
<213> Homo sapiens

<400> 537  
cctgcatgct ttaccagagc ccagcctcca gcctccacgg aaaatgtgtt ttggaatcaa 60  
cactctttgc aaaggctcca cactgctttc tggtagcatt ggccctggcg cccaggcact 120  
ccttttagaac ccacctgttc cccccaccca ccctagtggg aggaggagag ggttacactg 180  
acagataccg gcagctctgc aaccggggaa caacgcagac aacatacaac tcgacagagt 240  
cacagaaggt ggcgtccatc gcgcctggat ggtgactact gccctgcggg ctgctgggtg 300  
ggtgaaacac acagggaaga agcacaata cacacacaga tgtggctcag ggacatttga 360  
atgcttcagt gtgtgaattt tta 383

<210> 538  
<211> 375  
<212> DNA  
<213> Homo sapiens

<400> 538  
atttctagag cagcagcagc agcagcagca acctcagtc cccagagac tcttgccgt 60  
gacctgtgg tttcagctgg cgctgtgctt cggccctgca cagctcacgg gcgggttcga 120  
tgaccttcaa gtgtgtgctg acccggcat tcccagagaat ggcttcagga ccccagcgg 180  
aggggttttc tttgaaggct ctgtagcccg atttcactgc caagacggat tcaagctgaa 240  
gggcgctaca aagagactgt gtttgaagca ttttaatgga accctaggct ggatcccaag 300  
tgataattcc atctgtgtgc aagaagattg ccgtatccct caaatcgaag atgctgagat 360  
tcataacaag acata 375

<210> 539  
<211> 420  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(420)  
<223> n = A,T,C or G

<400> 539  
ggtgcagtgc atctttgcag agcacccaga ggtgggggac agtgactcac agagggtgct 60  
ttggccttac cctgccagca gcagctcccc tgctcttggga atctcccca gccccctgcc 120  
tcctgtctc ctgagcacct gcccagctc agtgactctg ggggtactgg ggagaccatg 180  
atgttgctac caccttagtc agggttgggg gagcccccg ccagggtgcc tccaggatcc 240  
gttccccac cctcctggg aagcctggac cagcatccct tcttgggtgg atggagcctc 300  
gtctcatct ccagctacat cagtcattct ctgcagggca aaatctcctc cctacccca 360  
gctgtttctg cagaanggcc ctggctgtgt tggcangact tcggtgtcca aggtanatct 420

<210> 540  
<211> 394  
<212> DNA  
<213> Homo sapiens

<400> 540  
gttgggacca cagacacaca gactacaggt ctggaaatct ctccaggcac cctgctttgg 60  
ccctctagaa tacagacagt tctgctcta agaggccatc tgtgaggctc agtctcccaa 120  
cacctctgat tcatccccg tctcctgggt ggagacaacg tgctccttct ggacttcaaa 180  
gccagcccca ctaccctcgg agtctgtgtg ctgggcgtgg acaagtctct gctttgtacc 240  
cactctgtgg ccgtgaacct gtgacctata cttctcagcc ttgcttttct tatctgtaaa 300

atgggaatag tcaactggatt tatcttaaag ctgaggtcac tgggtgtctgg gcttgaaaaga 360  
gaaccggctc atagggaccc tcactcacga gccc 394

<210> 541  
<211> 378  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(378)  
<223> n = A,T,C or G

<400> 541  
gtcagctccc gcgtgtctcc gctcgacagg gtgcttgggc aggtaagggt ccgctcagta 60  
gccaaccct ctctgtatgc agctcccaa attcagcgct gcgctcagge atggcagcca 120  
cccgttacgt gggggagggtg tgatatgcat ttattgaggt caaataaaat gctggaaatt 180  
ggtgcctggt gacactgtca ggttggtggt taccctagca ggtcggccca gccctgaac 240  
gcttccatca ctgccgaaaag ccctgtgagg aggcgcagag ctgagcattc cccgccgttg 300  
cgtgggccc nntntacctg ncgcntnttt cctctttgct gcagagccca ttgggtannn 360  
gcggccatgg ncantcaa 378

<210> 542  
<211> 382  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(382)  
<223> n = A,T,C or G

<400> 542  
gggaggtcct ccattgcgcag tcatgagtcg cttcaagttt atcgatattg gtatcaactt 60  
gactgaccct atgttcagag gaatttatag gggggttcaa aagcatcaag tttatgatta 120  
caggtggaaa tctacaagac agtaaagatg cactgcattt ggcacaaaca aatggatatc 180  
tcatatttct tttacaaaaa aaaaaatgaa ttaagtaatt ttgaagaagt ctttctgaaa 240  
actgcttcag gtatgttttt cagtacagtt ggatgtcatc ctacaagatg tggatgaattt 300  
gaaaagaata accctgatct ttacttaaag gagttgctaa atcttgctga aaacaataaa 360  
gggaaagtgt nggcaatagg aa 382

<210> 543  
<211> 382  
<212> DNA  
<213> Homo sapiens

<400> 543  
acagcatggt gaagcctatc cccagtcac agtgatagaa gttcttagtt aaagacgaga 60  
atctgtttac tggcctcgag acattgcact gcacctggga agggcaggta gtccgtgtgc 120  
tggtccttcc agctttccag ggcggaagtg gtgaggggtgc gcgtttctga cttcgtggct 180  
gctctctgga gactgctcag tatctttgca catgccaccc tgagatgcat gaccattgat 240  
agcctggttt gcctgtaaga caaagcagcc ccaccatgca gtaggcgcca gctgtatacc 300  
tcaattggta tcacctgcag ccttgccagc tgaggcagat gcacctgagt gtgagggcgg 360  
caattgacct gttcctccat gt 382

<210> 544

<211> 378  
 <212> DNA  
 <213> Homo sapiens

<400> 544  
 gggcgggacg gtacagcacc cggaggaacc ttgattccct gccccgcaag cccagcaccg 60  
 gttttgccgc cttgtctcga aggggtcaacc aggccatctc ctgcctcggg acggagagcg 120  
 ccctggaaaaa ggcggagggg ccgaccttag tcacacaaga gcgatggcaa gattttcacc 180  
 caagccatct gacttggaac ccatggatta accaactgcc actggaggca aatccagaga 240  
 ccaagggagc agtttataca gaaacagaaa aattagccgg gcattggtgt gggcgctgt 300  
 agtcccagct actcggaagg ctgaggcagg agaattggtgt gaaccagga ggcggagggt 360  
 gcagtcagcc gagatcgc 378

<210> 545  
 <211> 402  
 <212> DNA  
 <213> Homo sapiens

<400> 545  
 cctggctgag aggcgttagg agtccggggg ttgcgccgag gaggccgggg agcagccgac 60  
 catggagccc cagagggata tgcaacgaag catgttgttg aaggctcggg accaaggagc 120  
 ctgtacagat ttgcctgaa ggtcaccagc cctctctggg agtgtgagta cagccactc 180  
 gtctcagtgt ctacaaccag agagcccata agtagtgaga cttgcaccgg gctgtcagtg 240  
 tgaatgatga agatttgctg gtccgaatac ttcaaggagg ccgtgttaag ggtgatgttc 300  
 ccaataagtt tggctttacc gctctgatgg ttgctgccag aaaggataca ccaggcttgt 360  
 gaaaatccta gtttctaata gcacagacgt gaatctgaag aa 402

<210> 546  
 <211> 380  
 <212> DNA  
 <213> Homo sapiens

<400> 546  
 acgcctcgcc ggagtgactg aggcactgaa gccaacagca gccaccagga ccacattgct 60  
 ggggggcaag gaagcacagg ccctgggagt cccggggggc tccgctgaga cgacagaagc 120  
 cgagtggggg cctgcggcct ggcccagga caaaagggc cgccttaatg ttgcagcccc 180  
 ttgccaaccg cgccccacac attttggtgg cctcatggtg accgagcctg ggctacaagc 240  
 agaatgacca aggccagga atacctggtc cacgtggccc cacactgcgc caacttccta 300  
 gtgcccctctc agaacctaca cctgaccctg gccctgctgc gactggcagg cgctggggag 360  
 gaggccgctg ccattggagc 380

<210> 547  
 <211> 392  
 <212> DNA  
 <213> Homo sapiens

<400> 547  
 cgaagtgctc aaggacatcg agacggcctg caagctgctc aacatcaccg cagatcccat 60  
 ggactggagc cccagcaatg tgcagaagtg gctcctgttg acagagcacc aataccggct 120  
 gccccccatg ggcaaggcct tccaggagct ggcgggcaag gagctgtgag ccattgtcga 180  
 ggagcagttc cgccagcgct cgcccctggg tggggatgtg ctgcacgccc acctggacat 240  
 ctggaagtca gcggcctgga tgaaagagcg gacttcacct ggggcgattc actactgtgc 300  
 ctgcaccagt gaggagagct ggaccgacag cgagggtggac tcatcatgct ccgggcagcc 360  
 catccacctg tggcagttcc tcaaggagtt gt 392

<210> 548

<211> 379  
 <212> DNA  
 <213> Homo sapiens

<400> 548  
 ggccacgtct tgagcctggg cgccagcagc ttcgtggagg aggagcacca gacctggtac 60  
 ttccttgtag acaccctgtg tctagctctg agccaagaaa cctacagaaa ctactttctg 120  
 ggagatgacg gtgagcctcc gtgtggcctc tgtgtggaac aagggcatga cggggccaca 180  
 gcagcgtggc aggacgggcc tggctgtgat gtcttgagc gagacaaagg ccacggaagc 240  
 ccctctacct ccgaagtgtc cagaggccgc gagaagtgga tgggtgctggc cagtccgtgg 300  
 ctaatactgg cctgctgccg gctgctgcgc tccctaaacc agacaggtgt gcagtgggct 360  
 caccggcctg acctcgga 379

<210> 549  
 <211> 464  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1) ... (464)  
 <223> n = A,T,C or G

<400> 549  
 tttggccnct tnaatcaagt ttgtgtcctt ttgcaggatc ccatcgattc gctcagcagg 60  
 aacactaagt ccatggaaaa caggccctgg gcccgctgat gtgcataatt ccacgtttgc 120  
 ccccatgta accaggatgg taaattacag gtgtcagata atcacgctct ggagtggcta 180  
 cttgaggatg cgatcgacca atttaagctc cgtctgacac atgatcaata gcccgatg 240  
 ctgcatggaa ttgcaggcac agcgtccaaa cctgcagagc agtggctccc agctgtggca 300  
 actttgcccc ccagaggaca tttggcaatg tctggatatg tttgcaattg tcacaactag 360  
 gagaggggga tgctattggc atctggcgag tgaggccaag gatgctgcta aacctcccat 420  
 gatgcacagg agaaagtccc cacacagacc attctggggc aaat 464

<210> 550  
 <211> 458  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1) ... (458)  
 <223> n = A,T,C or G

<400> 550  
 cccctactng anactcttta aacaagctct tgttcttttt gcaggatccc atcgattcgc 60  
 ttagtctttg gcttttgctg acattttccc ctcttatctt ttctcctgac caagttctag 120  
 gtatttcata gggcagtcta ggtgaggggtt ggaaccccaa tgagttgggc aacagaaacc 180  
 cagctcacac tggctgtcac tgtgggcaag ctgttcccct catctctaaa agtggagatg 240  
 agattagtgt atgagtctgg cttccattca actgtgtgtg aaaaaaatt gtaaaatttt 300  
 ctttctggtt tacgcaagtt aaaagtttat ttctctcata tgaaaggagt caaggcagac 360  
 agaccaggat ggggagggag atgtctacag ggtcaaggac ccaggctctt atttcgctgc 420  
 tgacgtcctt agtatgaggc tttcaccttc caggatgg 458

<210> 551  
 <211> 400  
 <212> DNA

<213> Homo sapiens

```
<400> 551
ctggcttcct ggccaaagag ccgcgcagc gaggtggggt tgggggctgg gaccagctc      60
cgtgccccgc cacctggctc tctgggaaga atcgacctg tcaccctcga aggactggcc      120
gctaaataac ttcggtattg agagctgtgt gagcctcaaa gggagggccc agaccagctg      180
gagtctctac cccagacag gataaagggc aggacttggg gtcataggag gaggcggcta      240
acatgaaaac aacttaggtt ggagagaagg aggggccaat ccaatctgca ccctccctgt      300
gtctgtcccg agtaggtgct gtccccctct cccttctttt gccaccgatt ggaggacac      360
tctggaaaac tcagttgaag aaagcggaga gtctgcgtgt                        400
```

<210> 552

<211> 395

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(395)

<223> n = A,T,C or G

```
<400> 552
ataacatggt caatttaaag aaaaaaatct gaagccactt aaaagctact gtttggcacc      60
gatacattat tccagtaatg aataatcatt aaagatatta ttctggatgc agttaccatg      120
cagtgatgtg aataaaatgc attagatgga aaattgtatt tcaagtaa atatgcactg      180
gtagaaatgt tttaccaccc actaatatgt attaattcaa aaccaa atgcactg      240
tcgcctacac gggtttgaat ggcaggcagt gatttgggag tgggaggaaa taggtttgga      300
tttggtcaaa tagactgaga agtgatagtg ggggcggggg tttatgactc aaactttaac      360
aggtgagang actatgccat ggacagaaca ggcat                        395
```

<210> 553

<211> 395

<212> DNA

<213> Homo sapiens

```
<400> 553
gatgagggtg tagactgttg agtcgcataa ggacttgacc gccggcacag ggagctggag      60
caaaccacaag actggctgag accattcatc atgcctgggt gagcacaatt taaatctgga      120
aatttctgct cagccagatt acagaactct aaatgacagt atttaactgc tgcctgagga      180
ccctggaggt tctcccatgt gacgcttccc gaatcaaggg agggatgtgc tctcctcttg      240
cctaggagga ggtcctggac tggctctgtt ctggagagac tggacacttg gcatcctctc      300
ccaccatgaa ctgcccccca ccgccatat aaatgttact gctgggggtg tgaacaagta      360
aacgtgtatt attacctccc ttgccagctg aggag                        395
```

<210> 554

<211> 389

<212> DNA

<213> Homo sapiens

```
<400> 554
agcagctggg gaggagccaa agcctcggcg ctcacctaa cgcagggag atacacccaa      60
ctgggagatg aggaaacagc aaccagaga ggagaactaa cccacacagg atcatttcgc      120
gaaggagcaa ggctgaagaa ccagacctgg actttcttag gcaagtaaat tctgattata      180
tcacggagac ttgctttgag aaatctgccc cttttcactg tgagatggcg tcattaacac      240
atctagttct ctctaagca gccagcaaac atttattata cactagatat tatattggca      300
tttgagatga tacaaaggaa taaaatgggg caattagctc tagtaatttg gaggtcaac      360
```



ttacggatat tccaagttcc tttgaaacg

389

<210> 555

<211> 391

<212> DNA

<213> Homo sapiens

<400> 555

gttcagcccc	tagtgtcttc	tgtaaggccc	ctaacatcag	tagatgggtca	gttaacaagc	60
cctgcaacac	catccccctga	tgcaagcact	tctctggaag	actcttttgc	tcattttacaa	120
ctcagtggag	acaacacagc	tgaaaggagt	cataggggag	aaggagaaga	agatcatgaa	180
tcaccatctt	caggcagggt	accagcacca	gacacctcca	ttgaagaaac	tgaatcagat	240
gccagtagtg	atagttagga	tgtatctgca	gttggtgcac	agcactcctt	gacccaacag	300
agacttttgg	tttctaatagc	aaaccagaca	gtacccgatc	gatcagatcg	atcgggaact	360
gatcgatcag	tagcaggggg	tggaacaagt	g			391

<210> 556

<211> 406

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(406)

<223> n = A,T,C or G

<400> 556

ataaaaaaag	gcattttaagc	aagggttgga	actgaaaaaa	aaatctgact	gtatattctg	60
taaaactata	ataaacaaga	ggaaatggca	agtgtttcca	actgagaggt	tcccagttgt	120
aatctactgg	cattctttta	taggaatatt	taatagtcaa	ttctcaccaa	caagaatgga	180
cttcaaataa	agccacattt	tgaaacaata	ggttggttac	agcagcatag	caacggctat	240
aaagcaacaa	ttcctaatac	tacttatctt	gctggctatt	caagaaaaag	gtgtagaact	300
tccttactga	gaggatcttg	agttataatt	tagtactaaa	ttataagtaa	tgnttggtgtg	360
gatacaaata	tgacacaaaa	aatgccttcc	tttaaaacc	attata		406

<210> 557

<211> 386

<212> DNA

<213> Homo sapiens

<400> 557

agaggagtgg	tttctggctg	aatactatct	taggctcaag	gagaaacaaa	ataaaaaatta	60
gctttccaggc	agcctgtttt	taaagaaatg	ggactaatgg	gagaagctgt	ttgtcactct	120
aagagcatcc	aagccctggc	ctgtctgtgc	actcttggtc	cctggggaga	tatatctgcc	180
ttctaagaag	gcaggccagg	tcttggggac	agacctgcat	ttgttgacct	tgactcccaa	240
ctatagtgcc	ttgcaagtgc	tcaacagtac	atattggaat	gaagtcctta	tgagagccat	300
ttctggccat	gttctatacc	tcaaagttag	gctggcagg	acagagatga	actgtcacat	360
gtgatacatt	taagccactg	gaaaaa				386

<210> 558

<211> 383

<212> DNA

<213> Homo sapiens

<400> 558

ctcgcagcag	ctggggagga	gccaaagcct	cggcgctcac	ctaagccgca	gggagataca	60
------------	------------	------------	------------	------------	------------	----

cccaactggg	agatgaggaa	acagcaaccc	agagaggaga	actaaccac	acaggatcat	120
ttcgtgaagg	agcaaggctg	aagaaccaga	cctggacttt	cttaggacaa	acttactgca	180
gcttgaagga	gccaaccatg	gatttgaggc	gtgtgaagga	atatttctct	ggctctacta	240
tcaataccaa	atcattagct	gctgtgctgt	tttagagccc	tgggagcgat	ctatgtttaa	300
caccatctta	ctaaccatta	ttgctatggt	ggtatacact	gcctatgtct	ttattccaat	360
ccacattcgc	ctggcttggg	aat				383

<210> 559

<211> 376

<212> DNA

<213> Homo sapiens

<400> 559

gacagcctgg	ggaacgctgg	ggccctgctg	aatccccggc	tctccaggca	cgaacagggg	60
catcccgcgt	ccacgccgcg	gggaggaggg	tttcaccgct	tccagggaact	tggctcgagg	120
aaattaaact	ctaattgagta	gctcgagaaa	tggtccggga	tgggtgatga	gcgatcatcc	180
ttaaaagaaa	atgctattct	gggagctcca	acctgcaatt	aacctacaga	aggaaccttt	240
tgagaggctg	gtgcagcgct	tcggggaggg	agattaagaa	cttagttggc	ctgggtgaag	300
ctctgtgagg	agcaaagcag	ccctctccag	gtgaactgct	tgactttacc	acctgaagga	360
gtatttactg	caagaa					376

<210> 560

<211> 380

<212> DNA

<213> Homo sapiens

<400> 560

gcagacagga	ggctggacag	aggggccctg	tgccaggctg	caggggagaa	gctgggtggga	60
gggtgcttgg	acagagtgtc	gggttttgat	ctgaccccct	gggggctgtg	aggtctgcag	120
aggaaatgca	acctcccagg	gctggagcct	gcctgtcac	ctgctcagca	gtgtggccga	180
ctgagcatgt	cacctctgaa	ctgcagatcc	tcctccctgc	aaggggataa	ccacagcccc	240
cccacaccca	gggatcctgg	gagattaact	tcgaggatac	agcagggcac	gcagcctggt	300
acacgctcgg	ggaagaatgt	cagcaaacct	tcctcctctt	cccgtcctga	ccctgcagtc	360
acaccctcca	gggctatggc					380

<210> 561

<211> 404

<212> DNA

<213> Homo sapiens

<400> 561

cggctctccac	gggagccacc	ggtcctgaaa	gcgcggagca	tgctttgttt	gcggaaacga	60
aagcgaatac	ttcttttcaa	ggagacttag	gaaagggcag	acgctccac	tgcctcaggt	120
gttccctgga	ggaccttcaa	gtggccgccg	tgtgggcggg	ctagcgtccc	gctgctgcgc	180
tggttccgga	gcccttccct	tgcctctccc	agggtccttc	tcccagcgtc	ggaggaaggc	240
ccgccgtctg	cgagtggagt	gcgggtggtg	ggaatccctg	ggaggattac	gaaatcctta	300
aagtgggatt	taccaaagcg	attcctttcc	gctcacttcc	gttcccgtct	aacaaacgtg	360
ttggaaacgt	gttgctactg	aaaggaagtg	gcgctgggct	gcat		404

<210> 562

<211> 387

<212> DNA

<213> Homo sapiens

<400> 562

gcagcccttg	actcctaagc	cccttccctc	ttccattctg	catccctccc	ccatccaacc	60
------------	------------	------------	------------	------------	------------	----

taaatgccac	agctggggct	gagctgtatt	cctgtggagg	gacctctgcc	gtgcctctct	120
gaggtcaggc	tgtgctgtgt	gatgggcagg	ctttgcccc	gcccaccct	ggcaagggtgc	180
acttgttttc	tggtttgtag	aagggtgtcct	ggggggcccg	ggcttccctg	cagtgaggag	240
tgacttctcc	ctctcttcca	gtcctgtagg	ggagacaaaa	ccagattggg	gggccaagg	300
ggagcatgga	aaaggccggc	tcccctgtct	ttccttggtc	gtcagagtca	gggtaacaca	360
caccaagagt	ggagtgcggc	cagcaag				387

<210> 563

<211> 383

<212> DNA

<213> Homo sapiens

<400> 563

aaacgggatg	gtttatagga	gttcccat	ggttgaaagc	tagaagccct	aattgacctt	60
aaagtaacat	gctatgggat	ggtgggattg	tcccctctga	cagcacatat	gaaatagttc	120
atctatataa	tagaaacgca	cacacacgaa	agagaatctt	ctgacttaaa	tacaactttc	180
atggagttct	tcaccactta	tctgtctctg	ttaaaatctg	aaaatctagc	ccatggctaa	240
aatctattat	atgtgttctc	catatttctt	gtataagcca	gtcccagca	tctgatgttt	300
tgagaagtgc	atggagtttc	ctaaactttg	cacagaagaa	tatcctgggg	ccgggcatgg	360
tggctcacgc	ctgtaatccc	agc				383

<210> 564

<211> 156

<212> DNA

<213> Homo sapiens

<400> 564

atgccaat	catatttatt	tttccatacc	tgattttttt	caagtctgta	ataaaaaaag	60
tataagttga	gattaacata	ggttattttt	catgaagtat	agcaaacgat	ctagaatgtg	120
ataggagtgt	ggtttccatt	tctttttttt	tttttt			156

<210> 565

<211> 465

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1) ... (465)

<223> n = A,T,C or G

<400> 565

tttggncnct	taaacatttg	ntgcctttnt	gcaggatccc	tngnttctna	tncggcacga	60
ggttccctgt	agctgcctac	agatcaggcc	tctccaaggc	cccctcccga	aagaagaagg	120
gcagcaaagg	ccccgtgatc	aaaatcaccg	aaatgtcaga	gaagtacttc	tgcgaggagt	180
cggaggtctc	agagtaaggc	ggctggaccc	caggaacccc	agggcactcc	actgcagcag	240
gagggactta	agctagactc	aagaaagcag	cttgaggcct	ctaggttgag	aagagaggca	300
aaaacctgat	attgaactga	gagagggggt	caaaactgac	tgtgttttgt	gggctgccag	360
ggtgggagag	gagcatcacc	agctcctcag	agccactccg	ctccatatca	agtatctcac	420
aagtcccatc	cttccacctt	ctgggcagaa	ggtttttctga	tgggg		465

<210> 566

<211> 450

<212> DNA

<213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(450)  
 <223> n = A,T,C or G

<400> 566  
 tgaancccta nacaagctnt tgntctntnt gcangagccc ttcgattntt ttctncccc 60  
 agagcttagc aagacatgat cagcctggat tacagctgcc ctcacgtaac tgggttaaag 120  
 tggtggccta cttaggcccc tctgcagtg gcttccttca aagctgatga ggccgattag 180  
 ggtgctatatt ctgagatcta gtcgtgtacc cagaagcctg agggcggtcc tcccctgact 240  
 agaaagacaa tgactaaggc tggacagcca agggcagagt cagatttgcc cataggagag 300  
 cactgccgtc agaactcatg tatgcttgta aaagaaccaa ataatatcaa ggctaagtcc 360  
 ctggattttg aacttcaaaa accaaaccaa ccaatcagtt ttcagggata ggcctagtcc 420  
 tacacctttg ccatcttcag aacttaaaga 450

<210> 567  
 <211> 442  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(442)  
 <223> n = A,T,C or G

<400> 567  
 tggaccnnt gaagcccttg tctttttgca ggatcccatc gattcgtggg tactttatac 60  
 aaagaaaatt cagccctttc tgctgtgtct tcaaattatg cagggttaga taatctgatg 120  
 ctaacttttt ttttctcttt ggttcttgaa tagcttagtt tctttaataa caagtcaaac 180  
 tttattacaa caataactga agttattctt ttaggttctc gtgaaattct cactgaaagc 240  
 cacattctta gcctaaggca tttcatcttt tatgatataa aatgatggct atcaaatgat 300  
 tttccataca ttgtactgat caagttatac acccaggggt atatacactt tcttcatggt 360  
 tcttctttgt atatttgggg actgtatcgt catagatgta catattgtgc ggtagggcta 420  
 tgaggcatgt tacaggaatg ta 442

<210> 568  
 <211> 442  
 <212> DNA  
 <213> Homo sapiens

<400> 568  
 acccttttgac tttctgcagg aaccocatga ttcgctggtc agttcagtcc ctatgaatgt 60  
 ctcttctaca ggaggctacc ctgcccctgc taccctggga gaagcctcag ctttctgggc 120  
 agagtttgct tccctgtcat ttatactctc aggctttata catttacaca gtaagtcttc 180  
 cctcctggag ggttaaaagg aataatttca acagggtgaa ggccctggcag ggtggctcac 240  
 aactgtaatc caaggacttt gggaggctga ggtgggtgga tcacctgagg tcaggaattt 300  
 gagaccagcc tggccaactt ggtgaaaccc tgtctctact aaaaacaaaa attagccagg 360  
 tgaggtggca cacacctata gcccagcta ctgggggagg ctgaggcagg agaattgctt 420  
 gaacctggga ggcagagggt ac 442

<210> 569  
 <211> 424  
 <212> DNA  
 <213> Homo sapiens

<400> 569

aagatggtaa	gctagatttg	acaataccac	atgcttcaaa	atttaggctt	gggaattgaa	60
tcttttgta	tcatatgtgg	atatataaaa	acacattttt	aactcttaaa	tgtattacta	120
ctgtaataat	tagataaatt	tgggtctcatc	ctattacatc	caaattgcca	cttaaagtct	180
ggttttaaa	taagaagagc	aaggatcttc	ctggcaacta	taatagtcaa	agaaaaccag	240
cagtgactga	agaaaaaaat	gaactgctga	gatgaaacta	tcactgtaac	tcccagcaaa	300
tgtcaatgct	atccttatct	tatacctgtg	attctggaag	ctttcagagt	ttctctttga	360
gacttgctcc	agtaaccaga	tctaaacttt	tccttcctct	ccagttagcc	agtcatgctc	420
taga						424

<210> 570

<211> 394

<212> DNA

<213> Homo sapiens

<400> 570

gctctgcggc	gccgcgggtcc	cggcaccccg	ggccctgtgg	ctcggccatc	gtattcctcc	60
tttactcagg	gggacagctg	gggtgaaggc	gaagtcgacg	aggaggaggg	atgcgaccaa	120
gtggccccgc	acctgcgggc	ggagtctctg	gctggggcgt	ggtcagagcc	cagaaagcgc	180
tcgggtgctc	cgccggacgg	gaacgggtcg	cccgttctgc	ccgataagcg	caatgggtatc	240
tttcccgcg	ccgcgggcag	cagagcccag	cctcggcggt	ggccgggtcca	ggcctctcta	300
ttctctgctc	gctgctcttc	gccattcttc	tcgccttctc	cctcgccatc	gcctacttga	360
tcgttaaaga	gttgcatgct	tagaaattga	aaaa			394

<210> 571

<211> 398

<212> DNA

<213> Homo sapiens

<400> 571

tccatctctt	cttcctagta	ttcatgtcta	ccaaatgctt	tctttggctt	cctctgaaag	60
aagccagttt	cagcaagtga	gtttgtgatt	ctttctcctt	tcaggtacct	gtttcccagg	120
caactactga	tcaggcattt	ctggacccca	aaacaacaaa	ctgatttctt	agatatctat	180
catgcttttc	ggaagcagtc	ccaccagaa	attattagtt	atttagaaaa	ggtcatccct	240
ctcatttctg	atgcaggact	ccggtggcgt	ctgacagatc	tgtgcaccaa	ggtattcctg	300
cagttaaccc	ttcctacaaa	tgtggaatct	tgttagattc	agtgtgcact	aaactaggta	360
agaggagtag	tcaggacttt	cctaacatct	accaatct			398

<210> 572

<211> 387

<212> DNA

<213> Homo sapiens

<400> 572

gttgccatac	tcttgccatac	acaatcggtt	atctagtttt	tgattgtttg	tgtgtatggt	60
gtgtgctgtc	tctctgacca	gatttcaggt	tcctgaggcg	agcctgcagc	tcatactgct	120
catctgtcct	ctcctgtggt	gggtgctcag	ggcctctcac	tgttagttac	tccctccttt	180
ctgcccagtt	ctgcactcaa	ctagtagaag	cagccatcct	ttccccaagc	aggaaattgt	240
agtggtcgcc	cttaagagca	gtgtgagggc	agaagattaa	gggaggggaa	gagtcctctg	300
aactggaaga	aggtaaatac	tttgcccttga	gagggcgccg	aatcatttta	ccaaaatagt	360
aaatggaaaa	agtgtcaaa	ggtgggg				387

<210> 573

<211> 383

<212> DNA

<213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(383)  
 <223> n = A,T,C or G

<400> 573  
 acaagagccc ctggggagta ggtggtggcc tgtgccgtca tccccatttc aaagcagggga 60  
 gctgaggtcc tgggagggga aagtgttgc ctgaggtccc actgtgttag tgggtgggca 120  
 ggactggaac tcggttctcc aacagcccag agctcactct tttacaccca naggtggagc 180  
 aggtggctta ggggggtgta tgtacttcac aagccaattc ccttcagcca ggagctcctg 240  
 ggtgcatttc cgtgtcagaa acagtaccga gtcccacccc ctctggaggc acagctgttg 300  
 cgtcaggcaa ggtcacctgc atttatttat tgagcagcaa tgctgtgtna ggcccagggga 360  
 ccganccctt ctctgttnc cta 383

<210> 574  
 <211> 381  
 <212> DNA  
 <213> Homo sapiens

<400> 574  
 ccaaagcaaa tgtattttta aaggcaaatg aggtttatta agaagagaga aatggcagat 60  
 gtctccgaga ctgaagtctc ttgatcttga gagtaggggc tggctctctgt ctctttactc 120  
 tagcacattc ttggtctttc cttttcaaga tgagtgcctt tttgtgcttt gcaccccata 180  
 ggtgggttatt aaatacatgt tgattgggtg gttggctgtt tgtctgggta gaagtggaga 240  
 gtcagagcta ggtggaaata gcacttgcaa ccattgcagc tgctgttgga atgacacagg 300  
 caagagatca cttttggggc aggcgcgggtg gctcatgcct gcaattccag cactttggga 360  
 ggccgaggtg ggcagatcac a 381

<210> 575  
 <211> 375  
 <212> DNA  
 <213> Homo sapiens

<400> 575  
 ccaaagcaaa tgtattttta aaggcaaatg aggtttatta agaagagaga aatggcagat 60  
 gtctccgaga ctgaagtctc ttgatcttga gagtaggggc tggctctctgt ctctttactc 120  
 tagcacattc ttggtctttc cttttcaaga tgagtgcctt tttgtgcttt gcaccccata 180  
 ggtgggttatt aaatacatgt tgattgggtg gttggctgtt tgtctgggta gaagtggaga 240  
 gtcagagcta ggtggaaata gcacttgcaa ccattgcagc tgctgttgga atgacacagg 300  
 caagagatca cttttggggc aggcgcgggtg gctcatgcct gcaattccag cactttggga 360  
 ggccgaggtg ggcag 375

<210> 576  
 <211> 379  
 <212> DNA  
 <213> Homo sapiens

<400> 576  
 tggattgtag gtgagcctca gatcttttgt tttttagtga gaggtggacc ttgcaggaga 60  
 gageccctccc ttctctgttc tgcggctgcc gactcccca ttgctgattc ccattgcagg 120  
 gtacttgcac ggtcacccca tttgccttac tccgtggact cttttctggg cattgagtag 180  
 caggctcagg gtctgagcac agggagctcc ctggagagaa tgttgcatct ctcaactccc 240  
 atcccgccac cccgtgtgta gcccctgcc tggattcact tcccctggaa agtttctgcc 300  
 catgaagccc caaaggcaga ggagagtga gagtgaatgc cacagctggg tctaggggct 360  
 ctgcccacag tgcccacag 379

<210> 577  
 <211> 384  
 <212> DNA  
 <213> Homo sapiens

<400> 577  
 atccactcct ctgcagggaa tatggaaatc tttccctcat ttatggctaa ttaggcagta 60  
 tagcctcatt aatcatggga tgacagtaca gtgtgggtgga aagaggatgc tgtggagcca 120  
 cacaaacagg gttcagagcc cagctttcct gccctaattg tggcactgtg caggtcagcc 180  
 ctgtttgtctg taaaatgggt gtaacacaga ctaatgtgca ggggtgggtgc aggggttagag 240  
 aaaacttaca tgacaggcaa agcagcgtac tttgtctata gaactcaata aactgttcct 300  
 ctgtaattat tattaataaa cattattgca gagtatgggc acagtggctc atacctgtaa 360  
 tctcaacatt ttgggaggcc gagg 384

<210> 578  
 <211> 383  
 <212> DNA  
 <213> Homo sapiens

<400> 578  
 gggaggagga tcccgtcctc atgggtgcgg gagcaacgtg gcgtgggagt gatcgttctg 60  
 ggggagaggg ggcagaagag agcgcgaggc gagcccgggg ccagggggcg aggggaatagt 120  
 ggctttggag ctacgctctc gccgaccaga cagtaggaca catgctggtt tcgcctactg 180  
 agatggcttc ccacccgtaa cctgcttgga gattcttgac actgcctgcc cctctgacat 240  
 cgctgccctg agatggctct atagagccag aggactggac aggacctgcc tcccgtcgt 300  
 ttgggttcgg cctcaggctt aggacaatgg ggtgttccta gcacccgagc gggcctcctg 360  
 gtcacagtgc gccttttagg tgg 383

<210> 579  
 <211> 387  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1) ... (387)  
 <223> n = A,T,C or G

<400> 579  
 gccgtcccc agcaggacag ggtaaccgcc gaggtggggg gcttcttgte cgtcccagcc 60  
 cccccaaactc aggcctctc gctgcccctg gcgaccaccg cgtgcgccct tccccagggc 120  
 gggcgagtc ctggacgcct ccgccgagcg tgactgcgtg cattttctct cctttccctt 180  
 cccaacctgc ggagagaaga cagccccaga gccgtgtctc catcctctgc tgatgcctgc 240  
 tgtctttatg ttggcctcgt cgnccgcact gcagtgtggc agggggcgcc ctcgtttccc 300  
 gcggactgag gtgggcgcg ggcattcagt aaacgaagaa accaaagcgg agaaggttgg 360  
 gaatcaaacg tctgtcatac ctgccac 387

<210> 580  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<400> 580  
 tcagatccga ggacatgttg acgtcgtccg agagtcttaa aatcctgctg tggccggatt 60  
 ccagactcgt gggggaaagg ctggatctta atgcaagtca tgaacttgaa tgtgccgatg 120  
 aggcttgcca ttcttgtcca gagacagagt aaggaagtgt tggccacacc cttagaaaac 180

agaagggaca	tggaggcaga	agaggagaac	caaataaatg	agaagcaaga	gcctgagaat	240
gctggagaaa	ctggtcaaga	agaggatgat	ggtttgcaga	aaatacacac	atctgtcact	300
agaactcctt	cagttgttga	aagccaaaaa	agacctttaa	aaggagtga	attttctagg	360
gaggtaatg	ttgtggatct	tgggaatgaa	tcctaccct	c		401

<210> 581  
 <211> 382  
 <212> DNA  
 <213> Homo sapiens

<400> 581	
ccacccccga	ttcctgacca
tgccccctat	cttgtgattt
cagacttggg	agagcaaaag
60	
ggaggggaag	aaaataagag
taatgggggg	aggaaggaat
gcatgggtct	gccccctaga
120	
gcaagtctga	aaccagaatc
aagagtcctc	ctccccagtg
ggcctgtgtg	ggggaagagg
180	
ggcagcctgc	cccaggggtg
caagaggaca	gcaattcagc
ttccaggcca	aagcagttta
240	
gacaaggtgt	gccccatcag
actccctcca	ggcctgggtc
gtttaccatg	tactgccta
300	
ctgtgacttc	atgccctttt
gggataaaga	acacaaaacg
catggaacaa	ctatccatgg
360	
ctcttagcca	gaaatgtctt
gc	
382	

<210> 582  
 <211> 381  
 <212> DNA  
 <213> Homo sapiens

<400> 582	
cagcctcctg	catcctcctc
gtcttcatct	tcctgcggta
ccccctcacc	gactactaag
60	
gcccgccagg	cacggctgct
ggcggagaca	agcactgaga
catgtttatt	ctcatggtcc
120	
ctgaaacgca	ggatcccatg
aggttggggc	agggcagggc
ttcttgtcct	ggggccccct
180	
tgagctgtga	actgggcagc
aaggccatca	gaagctgagt
acagcaaggg	gcagtgagct
240	
tggccctcag	tccacccccct
ccgcctcctg	gcctccgccc
tgcctgtgtc	tggggcctgg
300	
gggcttctcc	cctcgtctgct
gcaccctggc	ttccagcgtc
tgtgtccctg	cctacgtgcc
360	
ccttccaggc	tcctgggggc
c	
381	

<210> 583  
 <211> 387  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(387)  
 <223> n = A,T,C or G

<400> 583	
gcgagactct	gtctcgaaaa
aaaaaatcac	caggctggct
tacaaaggat	ggggtttttt
60	
tactgtcggt	tccagagatg
tgattctgga	gggtcaaggca
ggggccaggg	acacacaggt
120	
ttaataggcc	catgggggtt
ctgtgcagtg	cctcgggtca
cacctggaga	accgttgctc
180	
tgattgggtat	ttctccaccc
gggctgtgcg	ttagaatcaa
gaagaagcgt	tgagatattg
240	
ggatgcctgg	gtcctgctcc
catgctgggc	ttctggttta
cttgggatga	gattgcatcc
300	
agacagagtt	ttaaaagtgt
cccggttgag	tttaatgtac
agttgaagtt	gagacatgaa
360	
tctctgcatg	taggggaaat
tntgtgt	
387	

<210> 584  
 <211> 387  
 <212> DNA  
 <213> Homo sapiens



<220>  
 <221> misc\_feature  
 <222> (1)...(387)  
 <223> n = A,T,C or G

<400> 584  
 attcccaatt tcacaaattc ctcatgtctt tgagatttga tcagtttgtg aatattttat 60  
 gctttgatga tatagtgaga atgcatcact tgcaaaaacg atctcaaaag tgtcagcctt 120  
 agataaacgt tcagcattaa aaacgcctat tatttcattt actagcattt taggatccag 180  
 aagaattcca ccagattgca tgagtttagat tgggaaatgg gagtgggaga taatattgga 240  
 ggtatctatt ttaagtcagg ggctttacta gccgatttag ttctcacaat aaccatgtgg 300  
 agaagctgtg acatttttaa ttacaacct ttctggggct cagacataaa gttacctatc 360  
 caagggtgca gttgggtagt gngggga 387

<210> 585  
 <211> 391  
 <212> DNA  
 <213> Homo sapiens

<400> 585  
 ggaaaatctg ttttataatt ccctaaagct acaattacat gcaaactgga ttcttgaaat 60  
 aaaacacaat tgaattttaa tgacatctac atgaaacca ataactcgat tacattgttt 120  
 taatgttctt aatgtggca aaggcagccc atggctttat catcaattag gtaagctttt 180  
 gagggaaatt ctgaaaaatg gcaagtcctc acgtgtggac tgacaactga gcaatttgcc 240  
 tgctgtgctt cagaaagaga ggccagctct gtgaggtgct gtcgaaatga ctgaaaacca 300  
 cccactgcgg atttctactt ccctctatga aaaccagcct tctcagggat tatcaccgcc 360  
 aataagaagg gaaaattgcc tgcacagttg g 391

<210> 586  
 <211> 392  
 <212> DNA  
 <213> Homo sapiens

<400> 586  
 cccagtccac aatcacataa ggagtttgaa gaattgttaa atgtaagaac tagcccaaa 60  
 gtccaaataa ctgcatcagg ggagttggga aaattgtttt tcaaaaagat tttgtggtgc 120  
 agtacttatt ttgaattaga caaaaattaa gaaagacatg gtaatttttg ctagtgaat 180  
 tctaaaatgt atacataaaa gtgttgaaat tttaataact tgatttccac atctgaatta 240  
 ttctatgct gtttaaaaca ggtcatttcg gtgactttct caagggtgtg gaaggctttg 300  
 tacatagata actagaccaa aaccaacaag ctgtagtatg aaatgtactg tcaactctcat 360  
 tatccagata tttattttaca actatttaat ga 392

<210> 587  
 <211> 386  
 <212> DNA  
 <213> Homo sapiens

<400> 587  
 ctttgctgtg tgagtgcagc tatcatctat ctgtagcaac aggaaagtaa tgagggcgac 60  
 agtggggcac ttgctttgat tccctctttc ccattgccctg tcttaataata cttctctgca 120  
 gctgctttcc tgcagcttaa cttgctctca gattgagcac tttcaagctt tttgtgtatt 180  
 tctgtctttg gcaggatttg gcataggaat tgggtgcattg aggagaggag tgtatgataa 240  
 aggatccatg cagtccttcc tttattacac atatagctg gcttgctgtg gaccaaatta 300  
 atattctcct cccatcagac tacaaaaaaa ttggactacc acgctacaag tgtgtctccc 360  
 ccattccacc tctgtatccc tcccca 386

<210> 588  
 <211> 376  
 <212> DNA  
 <213> Homo sapiens

<400> 588  
 ggtttacttt acacattttt gattcagtcc ttaacccctt gctatttttt ccttctcagc 60  
 ttctctgagc tgtccttcct ttccatctca acaaatctct tgtccacacc aagggttaatt 120  
 ttgccccatc tgtggttagt taactcacaa atgatctttt acagcttctt ccccttgagg 180  
 ctgctgggtg tttttatttt cagcctttta aaaaatgtta cagagtggag tgccttgccc 240  
 actccccacc ccacaacctg ctgtggcacc tctggatggg cagaggggtc tgtgtggtct 300  
 gtctcacctc ctgtggactc gtgactcagg ctgtcccttc aactgatcaa ccaagacaat 360  
 ctttttttcc tgtcaa 376

<210> 589  
 <211> 376  
 <212> DNA  
 <213> Homo sapiens

<400> 589  
 ggctgctcca gcagcttggg ttcagagtga gaaggcataa aggagaatcc ccagctgact 60  
 tgtgcagtgg ttaattgaaa ttattcaggc aagagatgat ggtgtcttgg accaggggat 120  
 gaggaagggt acaaaatgtg tctacctgta ttctgtgagg agaactgttt ccctgggttt 180  
 agatactgtg aagatggatc aggagagagt ttatctagac tgttggggaa ggggtgtgag 240  
 attccttcag ctacacagga ttgaaaggag acatttctga aggggaaaaa ggaaatgaaa 300  
 gaaaagatgt ttcagattga ggatatgctg tgtggtgaac ttgttcttca ctctgtaggg 360  
 ttcacaaatg actctt 376

<210> 590  
 <211> 392  
 <212> DNA  
 <213> Homo sapiens

<400> 590  
 tccgttggac cttctctgac ttcaggggtg gtcgtgaggt aggagaggcc cgggttttagc 60  
 gatgagacca gtatgaaacg gagggccacg ggaggggccc aggggagcag gcgacgctca 120  
 gctatgggtt accttctctt tgggaccgat ggggtgctgg gaggatcccc catttgcat 180  
 ttagccgcac cccctgagcc gtctccgttc gaccctggga tcctccagat cccagattct 240  
 taggaaggac cttggagatc agctggacca gcccctgact tgcctgggtt cggaagcggg 300  
 aaccacagcg tgcccttagc tgtcaaggat gctgtgggaa gagtggagcc tcgaaccgga 360  
 gacgctagac ccaatttggg gcccatggga gg 392

<210> 591  
 <211> 387  
 <212> DNA  
 <213> Homo sapiens

<400> 591  
 acagcactgc aggagtcggc agccagtgtg gagcagtgga agaggcagtt ctccatctgc 60  
 cgtgatgaga atgaccggct ccgcaacaag attgatgagc tggaagaaca atgcagtgag 120  
 atcaacagag agaaggagaa gaacacgcag ctgaagagga ggatcgagga gctggaggca 180  
 gagctccgag aaaaggagac agagctgaaa gatctccgaa aacaaagtga atcatacctc 240  
 agctcatgtc agagtgcgaa tatgtctctg agaagctaga ggcggcagag agagacaatc 300  
 aaaacctgga agacaaagtg cgttccttaa agacagacat tgaggagagc aaataccgac 360  
 agcgcacctg aaggtggagt tgaagac 387

<210> 592  
 <211> 380  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(380)  
 <223> n = A,T,C or G

<400> 592  
 aatcccttct gcagcacctg gatcgctttt ccgagcttct ggcggtctca agcactacct 60  
 acgtcagcac ctgggacccc gccaccgtgc gccgggcctt gcagtgggag cgctacctgc 120  
 gccacatcca tcggccattt tgcgtcattg cccatttgcg tcattgnccc aaacctttnt 180  
 ttgcccanaa tcngtgcttt atgcnaaaaa tntgtnantg gnttnnatna ttanaaagac 240  
 canttngcnn gnnntanttn tttngtaagt nncgntctt ctttccantt ttaaagcct 300  
 tnttanatct gngtannnta anttncant nntantatnt tgnnaaaaa ggagtttnac 360  
 ngaannnaan tccccataat 380

<210> 593  
 <211> 458  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(458)  
 <223> n = A,T,C or G

<400> 593  
 tgccccctnt tgaaagcnct tgggtctttt gcaggaaccc atcgattcgt ccggaagtcc 60  
 aacaggggag ggagagtgga ggaaggaggc gtctcaacat ctggaaccat atttccatca 120  
 gatgtgtttc tcaagcactc tgccactcct ttctacctct cctgcgtttg atctgaggac 180  
 ggcccgttcc acaggaacac aaaggcacag aagatgaagt aacttgccca cggccacacg 240  
 gttgacacca tgaaggctga acaaaggata tctgggggca aaatctgacc catgggctgc 300  
 ccattgccac ctctgggcag cctccttga tgggtgtggag tccgcggtcc gcattggtta 360  
 acctaactgt gcttctcag atcagtctgg aattaattat tgaattgtat gcattttcaa 420  
 tgccatcctc aagctaacag ccaactatgc gggggaat 458

<210> 594  
 <211> 462  
 <212> DNA  
 <213> Homo sapiens

<400> 594  
 tttatacaag ctcttgttct ttttgcagga tcccatcgat tcgaaaacct aaaagaaagc 60  
 gaatgaattt gacacctgtt gggtggatga cagaccacac agagggagag tgaccaggct 120  
 ttgcttgtgg agcgggcac cctgcctagc tatctccttc atgtgcaagg acagtataag 180  
 tagtattttg catgtgagta aacacacctg cgcagccctg gctgaggtca ctaggctggc 240  
 cagaggcagg acaggcagtc ttgaatttcc tctaggggag gcctgcagtt tccccacca 300  
 accccttttc acatgctcca aagatgtagt agtgtctgct gttttggatc gaaaatcacc 360  
 ttgagtggag gaagtgactt cactgggtct ctggaggctc tcggagcttg agtggctctg 420  
 cccacctga atcatgcacc cataaatgca ggtatgggtg ga 462

<210> 595  
 <211> 437

<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(437)  
<223> n = A,T,C or G

<400> 595  
tagaccctcc ctngnncttt ttgcaggatc ccatcgattc gcttctttcc aaaacccttc 60  
tttgttctag atagctgtgc tgtagtgac tgccctagcc ctgcttttgt gctgacagag 120  
gctgccccag caggcctctt cctcctttc agagggaact ttctgttggg tgcagctgac 180  
tctggctaga ggccttttct ctctgtctg cctgagtcct ctcaagactc tgtcactctg 240  
ctgtgcaactg ctccgttccc gttccacatg cctccctgca aagaacccca gtaaggagaa 300  
acttacaaca atggggcagg cgctgatcag gaccagcaag attcagagtc agagcactga 360  
ggcagggctt gaaatgtctg acatcatcac acagtccac ttccccgtgg ctccctccaga 420  
tcttttagatg ttttaggt 437

<210> 596  
<211> 425  
<212> DNA  
<213> Homo sapiens

<400> 596  
ccccagaact ggagcacaat aagttaaata atttacctgt ctactttctt cttggcgtgc 60  
ttaaagcaa aaatgattcg ctacttcttg tccttcagtc cgggcatttg gggtgccact 120  
gaagactggg gttatctgct gaggtttggg tgtcttgagc gaagtatctc attgcagttg 180  
atthttgatga aaccaaacag taactagggt ccatgcagac cgtgactccc tgattacatc 240  
tagccatgcc ctacttattt cagagagaaa gagaggggga ataaaggcag tattgccaca 300  
ctgattagaa gcacattcat tccactttga tgttgaatat ttttgaccga tacatgcttg 360  
agtatctttt taatagagca catgaaggaa gaagcacaca atatagagaa ggaattgaga 420  
atgcc 425

<210> 597  
<211> 387  
<212> DNA  
<213> Homo sapiens

<400> 597  
cattcttaag gaatacactt atcttttttc ttttaaaaaa gtttttcttc tgctatttaa 60  
aaaaatgttt ctgagtataa ccaaaaatag gtatttgttt ccttggtttt cttttcttct 120  
tctttaacta agtagttcaa agaacaacac aacagaaaag agtaacaaaa agtcacaaga 180  
acataaccct taacacacct tgtataaaaa tagcttccgg ccatggctgc tgacagtgga 240  
tgctcccctg tcgaggggtg gatcaggctg gctgggtgcc tgaggctggg gcgcctctgc 300  
aggggacacc cacacccctt caccctccca cacacccatc ccacacatgg tacattccaa 360  
gggcccgggc ctgcaggaca ggaagca 387

<210> 598  
<211> 401  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(401)  
<223> n = A,T,C or G

<400> 598  
aatatgtcct ccatacattt tatcgaacat tattaattaa taaacaacag ataaataaca 60  
acagtgtttt gtttgattaa attatatata tgattatatt ttttcagtga aattgttggt 120  
tatgcatttc ttacaaaata ttcacaaata ttaatgaatg tctgtgttg agcaggcatt 180  
ttgctcacca cgggtggacct gggggtatgt gaaataggca ccatctctgc tctcacaaat 240  
ttaatacgtg caggctgctg gattggacta aagtcctgag gagaactata acaatctctt 300  
agagggaaca gtgattaaac agggatcaat tgtgccaccc atatagcctt cctacttact 360  
gatcaagaat gataagcaga ccttagcaag ngccaatcaa c 401

<210> 599  
<211> 375  
<212> DNA  
<213> Homo sapiens

<400> 599  
ggcaggggga ggtgagggag gttttttgct ttctttgctt tttattttta ttttttaata 60  
tggctgggaa tgcagaaatt ttaaaaatgg atacatttga gtgtgttaaa agtaaaaact 120  
tctcttggaac aaaacataaa ctgctaaccg caacggggga gaagatattt gccgcacatg 180  
taaataacag agactgttct acagcaccag gaggaattct gactgccaat ggggtgaagac 240  
gaggcaccca gggaaataaa ggggcagga tggggcagcc ctccacgcag aggagacgcc 300  
tgagaatgcg cacattcact ggttgtctat ctctagacaa cagcagatgc ctcttcacac 360  
caatcgatgg cacc 375

<210> 600  
<211> 398  
<212> DNA  
<213> Homo sapiens

<400> 600  
gccgccgccg cgctcgctcc ccgcgctggc ttcaggagcg acccggccga aatgaagttg 60  
aaaatagcac aggagcccac tatcactgtg tgaacatttt gtgaatgaag acatgtatga 120  
aaggatgttt ggaggcttca agaaacgaaa gccgagagtc tagctagacc agagccatcc 180  
agcccaggag cgatggccac gtgtggccgc tggacaagag agacgtggcc agtccaaact 240  
gtgcagtgcg gggcagtgga agccgttgga gggcctcagg caggaacaca aggtgtcgtg 300  
gcagaaagga agaagggggc gggcacgggt gccacaccc atcatcccag cactttggga 360  
gggaggccaa ggcaggagga tcgcttcaat ccaggagt 398

<210> 601  
<211> 389  
<212> DNA  
<213> Homo sapiens

<400> 601  
aaaatggggg gccagtgtcc tcagactaga atgttctagt atcttggggg aggaatgaga 60  
gaatataagc ctgaatgccg gcattatggg agccaaggag agttgggatg cccatttcaa 120  
tatatagact ttcattcaag acccatcttc agccaggcac gatggctcac acctgtaatc 180  
ccaacacttt gggaaagttg aagattactt gagcccagga gttcgagact acctgggcaa 240  
tgtggtgaga cctcatctct acaaaaaaaaa attttaaaga attagtcggg catagtagta 300  
catgcctctt gtcccagcta ctgagcaggc tgaggtggga ggatcacttg agcccaggaa 360  
atcaaggctg cagtgaagta tgatggcat 389

<210> 602  
<211> 243  
<212> DNA  
<213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(243)  
 <223> n = A,T,C or G

<400> 602  
 gagagagaga gagagagaga gagagagaga gagagagaga gagagagaga gagagagaga 60  
 gagagagaga gagagagaga gagagagaga gagagagaga gagagagaga gagagagaga 120  
 gagagagagn ggcncncccc nngcgnnnnn ttntctctct ctcaccccc ccncnctctn 180  
 tntttttnt cnntctctcn ctctntgtgc gncnnttng gngnncccc tttttttttt 240  
 ttt 243

<210> 603  
 <211> 429  
 <212> DNA  
 <213> Homo sapiens

<400> 603  
 cttaaaagaa aatgctattc tgggagctcc aacctgcaat taacctacag aaggaacctt 60  
 ttgagaggct ggtgcagcgc ttcggggagg cagattaaga actgacctag aaacagaagt 120  
 gaagtttgaa gtctgctctc tgcaaagagg gtgggagtgg gtggagaaga ggcttggttt 180  
 aaaagccaaa aacagaaagt aaaaagaaat gggaaagtaa aaccaaagca gcaagtgact 240  
 ctcttctgat gtgcactttt catttttctc cccacattt cagtgttaga aagaaaacga 300  
 gaggagctag ggaaagaagg agttggggac agaagactaa gatttcaacg tgaaattcca 360  
 tttacaaagg ctttactgca aacaatagct aatttagtcc tgtaaacaatg catttatcat 420  
 acatttttaa 429

<210> 604  
 <211> 469  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(469)  
 <223> n = A,T,C or G

<400> 604  
 cccccctttg aancccnccg naaacttctt anacaagccc ttggtctttt tgcaggatcc 60  
 catcgattcg ggcaagccca ccaaggggccc tatggctgca ggggccatgg gtacggggct 120  
 tgctcaggag agggaggtgg gtgctggagt ctcttgagcc tcactttgcc ctttggcagg 180  
 ctcttgaggaa gcagccacag aaatgaagcc tgttccccag gagccccagg gatggggaca 240  
 gaccccgctc tccctttgag gagctcccag gttagaggag aaggcagctc tgtggacaga 300  
 caaggattcg gtcgggggca ccagggctgt gatcaggagg tgccggagaa tcggggattg 360  
 gaagcagaga gattcttggc agttgaagca aaagtcggat ctttgggttc agatgtttaa 420  
 agcaacatgc attgcttgtt tctggtctan aaataactaca ttcgcattt 469

<210> 605  
 <211> 377  
 <212> DNA  
 <213> Homo sapiens

<400> 605  
 cctagctacc gctcactgga tatcactcca ggcaagaata gcaggaaaaa agggagtgtg 60  
 gagaggcgct cggagaaaga cagctctcat agtggaagga gtgtgggtcat ttagtcacca 120  
 agcacagcac aacttctgtg gctacttctc ggctcctgtg tgtcatcagc atcacctagg 180

tttccagctg	acttgggaac	tgcaagtctg	agtctaacag	ttttggctta	gattctgaga	240
atcaaataga	agaatttttaa	atacaagagt	ttgagattgg	gtatagtggc	tcacacctgt	300
aatcacagca	ctttgggagg	ctaagaatca	cttgagacta	ggagttcaag	atcagcctgg	360
gaaacatagt	gagaccc					377

<210> 606  
 <211> 382  
 <212> DNA  
 <213> Homo sapiens

<400> 606						
ggagtgaagt	cctgagcgag	tggacccggc	agcgggagat	agggggggcca	ggtgcctcca	60
cagtcagcca	tggcagcgct	gcgctacgcg	gggctggacg	acacggacag	tgaggacgag	120
ctgcctccgg	gctgggagga	gagaaccacc	aaggacggct	gggtttacta	cgccaatcac	180
accgaggaga	agactcagt	ggaacatcca	aaaactggaa	aaagaaaacg	agtggcagga	240
gatttgccat	acggatggga	acaagaaact	gatgagaacg	gacaagtgtt	ttttgttgac	300
catataaata	aaagaaccac	ctacttggac	ccaagactgg	cgtttactgt	ggatgataat	360
ccgaccaagc	caaccacccg	gc				382

<210> 607  
 <211> 187  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(187)  
 <223> n = A,T,C or G

<400> 607						
ggcccnnnnn	gnnnnnaacn	gccnactnnc	taagagaccn	cttcgaaaaan	ccagganccc	60
atcgattcgc	agtattagag	ccaccgcgcc	cagttgtgca	tttctggttt	ctaagaatca	120
aaccacttgg	ctgttttttag	gagttacttc	ccatgttata	aagctgagga	agcttttttt	180
ttttttt						187

<210> 608  
 <211> 468  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(468)  
 <223> n = A,T,C or G

<400> 608						
ggcgnnnnntc	tgacncngta	aacncngtct	tgntcttttt	gcaggatccc	atcgattcgc	60
atgagatggt	ttgatatagg	catgcaatgc	gtagtgatga	tatcatggaa	aacgggggtat	120
ccatcttctc	aactagttat	cctttgtgtt	gtaaacaatc	cagttaccaa	cccaacctgg	180
aaattgagta	ccagtaatat	aggcagttat	ccacgtggct	ctttgaaacg	tggtcgctaa	240
gctgtgcatg	tttgcaaacg	tggaagctgt	tgtgtagatg	atgttcactc	ccgtgaatat	300
gcagctgtga	tgtggccaac	agaaggggaag	gaacacgcct	gtgtgctcta	cgtcttctgc	360
aagccggcac	agctccatgc	gggaccagt	ctgatgccag	agtgaggtgt	gggggctgtg	420
gcctgtgtct	gccgcacgtg	gtggcattct	agcaaagcca	cgtgggtg		468

<210> 609

<211> 459  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(459)  
 <223> n = A,T,C or G

<400> 609  
 tctgnaancc ttacngaaac tcttcnnaca agcccttgtt ctttttgcag gatcccatcg 60  
 attcgcttct tcaggggaagg agctgctgtg ttttggaatg tgaaagacaa aactatgaag 120  
 catgtgatga aagttctaga aaaacatgaa attcagccct atgaaatcgc actgggtacac 180  
 tgggaaaatg aagaacttaa ctacataaaa atagaggggac agtcaaaaact tcacagggggg 240  
 gaaatcaagt taaattcaga gctggattta gatgatgcca ttctagagaa gtttgctttc 300  
 tocaatgctc tatgcctttc tgtaaaactg gcaatttggg aagcatcact ggataaattt 360  
 attgaatcta ttcagtcaat tcctgaggct ttaaaagctg ggaagaaagt gaaactatct 420  
 catgaagaag ttatgcagaa aatcgggtgaa ctctttgct 459

<210> 610  
 <211> 181  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(181)  
 <223> n = A,T,C or G

<400> 610  
 gaaacccttg nacgnaaact cttanacaag cccttgttct ttttgcagga tcccatcgat 60  
 tcgcagtatt agagccaccg cgcccagttg tgcatttctg gtttctaaga atcaaaccac 120  
 ttggctgttt ttaggagtta cttcccatgt tataaagctg aggaagcttt tttttttttt 180  
 t 181

<210> 611  
 <211> 479  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(479)  
 <223> n = A,T,C or G

<400> 611  
 ttgaaacctc cttgntcttt ttgcaggatc ccatcgatgc gcttctcctt tgtctctggt 60  
 ttggcaatcg gagctttcag ggcacagtgt ttgtctccag atgttgatgg aagtgggcac 120  
 tccttggtgg cctccaacag gaaaagcgtg ttctttcatt gtttctata cacacagaca 180  
 accgtttttc caggaaggca gccccatctt tagtcattga ctgcgggcct atcatcagtc 240  
 atgacgaaga ccgagtgagg tgtgtgcagg ccagaaacta gcacatcaca gccccagagt 300  
 gggctccaaa ccggtagacc agagagcctg caggataatt tcccccttaa gatgggtaga 360  
 tttactgttc cacagccaac aggtggatac gcgtaactag aacaatctgt catgggacta 420  
 agtggagaag tccatcagca ctacacagca tcttttcttc aaatacaact gtaaattctc 479

<210> 612



<211> 377  
 <212> DNA  
 <213> Homo sapiens

<400> 612  
 gattgaatcc tggaacctca ccatcttccc tattacgtat acttctctat tatgtataca 60  
 tcaccatctt ccctattatg tatacatcac catcttccct attatgtata cttctggtat 120  
 gtatacttca ccaccttccc tattatgtat acttccctat tatgtatact tcaccatctt 180  
 ccctattatg tatacttccc tattatgtat acttcaccat cttccctatt atgtatactt 240  
 ctctattatg tatacttctc tattatgtat acttcaccat cttccctatt atgtatacat 300  
 cagttttcaa atattaaacc caccttacat ttctaggata aaccctacat tattattatt 360  
 attattattt tcccaat 377

<210> 613  
 <211> 391  
 <212> DNA  
 <213> Homo sapiens

<400> 613  
 ttctgtctcc tccggacctg cctcatcccc ctcttcgtgc tctgtaacta ccagccccgc 60  
 gtccacctga agactgtggt cttccagtcg gatgtgtacc ccgcactcct cagctccctg 120  
 ctgggggtca gcaacggcta cctcagcacc ctggccctcc tctacggggc taagattgtg 180  
 ccagggagc tggtcgaggc cacgggagtg gtgatgtcct tttatgtgtg cttgggctta 240  
 acactggggt cagcctgctc taccctcctg gtgcacctca tctagaaggg aggacacaag 300  
 gacattgggtg cttcagagcc tttgaagatg agaagagagt gcaggagggc tggggggccat 360  
 ggagggaaagg cctaaagttt cacttggtga c 391

<210> 614  
 <211> 388  
 <212> DNA  
 <213> Homo sapiens

<400> 614  
 agagggttcat taagcatcta atttttcata ttaaattcct ttctgctaaa accagcaaga 60  
 gtgttctggt atctgtaact aatcttgatg cacacatcat ggggacactg ggtcacaggg 120  
 tttgataagt ggtagaagaa gggggaaaga agtttgtgca catttcagag acaagaggaa 180  
 aaggaaaagc agagatttcc tgtgagtgc aaggcctgtc taggcaaaga tgccctgcc 240  
 caccttgggc catttacaag gaaaacactt acaaaccag cagtagaaaa ccatatcaat 300  
 acattcccaa acaattacta cagtcagcag agatgacatc attctccttc ccatacgaac 360  
 aataagcctg gctctaactc tataaaca 388

<210> 615  
 <211> 453  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(453)  
 <223> n = A,T,C or G

<400> 615  
 tttgaactct naatacaagc ttntggttcc ntttgcagga tcccatcgat tctgtgactt 60  
 cgagcgtcgg gcccgggttc aggtggctga cgaggacaag cagtcccggc tgcgctacca 120  
 gaacctggag aacgatgagg atggagccca ggctctccg gagccggatg ggggagtcgg 180  
 caccagggat tccagccgaa cttccatccg cagctcccag tggctcttca gcaccatcag 240

cagcagcacc	cagcgctcct	acaacacctg	ctgcagctgg	acccaacacc	ctttgatcca	300
gaagaaccgc	cgagtgggtg	tggcctcctt	cctgctcctg	ctgctggggc	tggtgctgat	360
cctgggtcggc	gtgggactgg	aggcgacccc	ctctccaggt	gtctccagcg	ccatcttctt	420
cgtgccgggc	ttcctgttgt	tggcgcctgg	agt			453

<210> 616  
 <211> 378  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(378)  
 <223> n = A,T,C or G

<400> 616	
agtgtccctg	ccaaattcat
gtccactgga	acctcagcgt
gtgacttagc	tgaaaacagg
	60
gccctgccat	ctcatactgt
cctcctcggg	cacactggct
ggaggcaaag	ccctctcccc
	120
tgtttccgga	aatctccaac
cctgtgcacc	ttttatcagt
cttcacttgg	gtggattttt
	180
ctgtttctta	gagctcaact
ccaaccgccc	atttgccaaa
aggcaattga	gagctgttct
	240
ggcagccgag	gctcctccct
ctcctgctgg	aggccaggg
tctgtgggtg	tacagagggg
	300
cagcctggcg	agggcagggg
ctctggatct	tttgtcctct
gngtgcccca	ggacctaaac
	360
ccggcctgac	agtaggtg
	378

<210> 617  
 <211> 414  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(414)  
 <223> n = A,T,C or G

<400> 617	
ggaaggctca	cagggctgaa
tcttgaagaa	tgggggttct
caggggttaca	gagaagggga
	60
ggacattctg	gacagaaatg
gaatgtgtga	agatattgtg
tacttggaga	ttgcagatgt
	120
cgtgtggggc	taaacattct
tgttcagctg	caagaacatc
tgaaacctgg	gaaggctgtg
	180
ggaaacataa	agaactagat
gtataatatt	ttcagttttt
ttttaaatga	gtaactatta
	240
atagagtagc	acaaattaat
tgggtgcttg	ttctggacca
gatactgtgc	tactactgtg
	300
ctaggtcctt	tgttttttta
gacatggggg	ctcactgctg
ttgccgaggc	tgaaatgcan
	360
ngcacannca	cagctcacca
cagcctcgaa	cttctgcctc
aacaatcctc	ttgc
	414

<210> 618  
 <211> 458  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(458)  
 <223> n = A,T,C or G

<400> 618	
ttctgactca	tatcnagcta
cttgttcttt	ttgcaggatc
ccatcgattc	gagcaagaag
	60
cagagtgaga	gaggtgggga
gaattcaaga	tgatgttaga
gagatgacag	agtctaggtt
	120

agggagggcc	tgagtccttg	tagactctga	gtacggtgct	gagcagggaa	gagacaggct	180
ctggccttagg	gtttagaagg	aacacaggct	actgcgatga	ggattgtctg	aaggggaaca	240
aaggccaagg	tggggagacc	acttagaact	ctactgctct	actttagggtg	aaatggtaga	300
actgggtgag	ccgaaaacat	gctcagcatc	tgtgaggagg	gggcacagag	ggagcaagga	360
tggatccagg	gttttttagtc	tgatcaactg	aaagtctgga	acagccatta	cttaaaataa	420
ggaagtctaa	gggaagaaga	gatttagggg	agaatatc			458

<210> 619  
 <211> 387  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(387)  
 <223> n = A,T,C or G

<400> 619						
gtcttttcaact	cttctggcat	cggtgggtttt	acttcttcga	ttgaaccctg	cttcctcgac	60
ccccctggga	ggcgccttc	ttcaggcgcc	tcccttctct	ccacgagctc	gctctgacag	120
ctgaggaact	ggcaagatcc	tgctaccag	aggggtgaatg	ggatctttc	ccggaataat	180
cctaattttt	ctaagggtga	agtttgcaac	ggcggccgtg	attgtaagcg	gacaccagaa	240
aagtaccact	gtaagtcctg	agatgtctgg	tctgaattgg	aaacccttg	tatatggcgg	300
ccttgctct	atcgtggctg	agtttgggac	tttcctgtg	gacctacca	aaacacgact	360
tcangttcaa	ggccaagca	ttgatgc				387

<210> 620  
 <211> 394  
 <212> DNA  
 <213> Homo sapiens

<400> 620						
tgggcgttct	tataaaacag	ttctggaccg	ttggagagag	tctctccttt	cttctgctag	60
tctatcccaa	gtttttcttc	acctatccac	cttggatcgt	agcgtgatat	ggctctaaatc	120
tatactgaat	gcgcgttgca	agatatgtcg	aaagaaaggc	gatgctgaaa	acatggttct	180
ttgtgatggc	tgtgataggg	gtcatcatac	ctactgtgtt	cgaccaaagc	tcaagactgt	240
gcctgaagga	gactgggttt	gtccagaatg	tgcaccaaag	caacgttcta	gaagactctc	300
ctctagacag	agaccatcct	tggaaagtga	tgaagatgtg	gaagacagta	tgggaggtga	360
ggatgatgaa	gttgatggcg	atgaagaaga	aggc			394

<210> 621  
 <211> 453  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(453)  
 <223> n = A,T,C or G

<400> 621						
tatgaggnat	gnnaccttca	aacaagctac	ttgttctttt	tgcaggatcc	catcgattcg	60
ccagctcata	ctttccttcg	ctgtccctcc	cgcactcctt	aggcaagatt	tcccagtaaa	120
gattttctgt	gcgtatttta	aaagtcgtgt	taatactcat	gataattatt	agggacctgg	180
cagcgtgatt	ggagtatgga	tgtttccgta	aaagctggaa	ttccgtaaaa	gcattgacgc	240
agcccctaca	ctccatccca	accaagaaac	tgcatttcct	ggggccagggt	gggagctgcc	300

tttgcacccac	tgccctcccct	gttctgctct	ctcagtcacac	atgtggaaat	ccaaggagga	360
caaagactcc	agccacgctg	ctaaataggg	ctcctctctc	ctctctctct	ctctaggtgg	420
taaggntggg	gattaagtcc	aggtacagaa	caa			453

<210> 622  
 <211> 462  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(462)  
 <223> n = A,T,C or G

<400> 622						
attgaanccc	tattgnaacc	ttnaaacaag	ctacttggtc	tttttgccagg	atcccatcga	60
ttcgcaagaa	tctgctctta	gtagccctgt	gcctgacctt	cgggggtggag	gtgggcttta	120
agttcgccac	caagaccgtc	atctacctgc	tcaacccctg	tcacctgggc	accatgatgc	180
atatctttct	cctggcctgc	cctccatgct	ggggagctat	cgctcgtctc	aagctacaga	240
tgacacatgt	gaatggagct	cttctggcat	tgctgtttcc	tgtggtaaac	actcggctgc	300
tcccctttga	attggagatt	tactacattc	agcatgttat	gctctacgtg	gtacccatct	360
acctgctttg	gaaaggaggt	gcttacactc	cagagccctc	cagcagtttc	cgggtgggctc	420
ttctctcaac	tggcctcatg	ttcttttatc	acttcagcgc	tt		462

<210> 623  
 <211> 457  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(457)  
 <223> n = A,T,C or G

<400> 623						
tgaatccata	atacaagctt	nttggtcttt	ttgcaggatc	ccatcgattc	gcggggacgg	60
agctcggcgt	gcttgctgct	ggaggggtgat	ggccctgcaa	ggctgtgggc	tccgacctca	120
cggggagtcg	acagcgagag	gttcgccgaa	gagcgaggtt	ctgggcgagc	gctgaacgcc	180
ggccccaagc	accccggtgc	tttacacagt	cgcggtccac	agactctgac	gaagacgtgg	240
atctgctctc	gcttttagctg	ctcgcggtcc	tccagatcat	gtccgcgact	cctgcgactc	300
cgcgcggaaa	aaaaagtttg	ccaggcgtgg	actcaatgac	ctttccaagc	tgtgcgcctc	360
gctgcctgga	cggggtctga	gcgcggctgc	ccagggtgac	ctttctgcgg	gagggctttc	420
tctacgtgct	gttgtctcac	tgggtttttg	tccgacc			457

<210> 624  
 <211> 463  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(463)  
 <223> n = A,T,C or G

<400> 624						
ccccctttgg	naacccttaa	acaagctact	tgggtctttt	gcaggatccc	atcgattcgt	60

gcctatctcc	cacccctcgt	ttcctcacaa	agcaagccat	agagactaga	attcctcttt	120
ctcaacctaa	aaaatacgtc	tgtaactttc	ccctgccttt	ctgtgtaaga	tctggccatc	180
aagacatttt	ttgacctacc	ttccctcatt	ccaggaaggg	tctgtcctg	taccggggag	240
gaagaaatgc	tacacagaga	agccaagatg	aatctgaaca	gacagccttt	gtcagttcca	300
cagattccat	aaaagttaac	tccagagcag	agaatgatgc	cacagtcggg	ataacatcca	360
atatttgcaa	tcanaagaaa	tatgagagtc	ttgtccatca	cccaggctgc	agtgcagtg	420
cacgancttg	gctcactgca	agcttcacct	cccgggttca	cgc		463

<210> 625

<211> 444

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(444)

<223> n = A,T,C or G

<400> 625

tttgnactc	tanaatacaa	gctacttggt	ctttttgcag	gatcccatcg	attcgccaaa	60
acaaagggga	tttggtgatg	gaggctttgt	tagaaggaat	acaaaatcga	gggcatgggtg	120
ggggattttt	gacatcttgt	gaagcagaac	tacaggagct	catgaaacag	attgacataa	180
tggtggctca	taaaaaatct	gaatgggaag	gacgtacaca	tgctctagaa	acttgcttga	240
aaatccgtga	acaggaactt	aagagtctta	ggagtcagtt	ggatgtgaca	cataaggagg	300
ttggaatggt	gcatcagcag	gtagaagaac	atgaaaaaat	caagcaagag	atgaccatgg	360
aatataagca	ggagttgaag	aaactacatg	aagaattatg	catactgaag	agaagctatg	420
aaaagcttca	gaaaaagcaa	atga				444

<210> 626

<211> 456

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(456)

<223> n = A,T,C or G

<400> 626

tctgaaancc	ttnnngnnac	ccttnaatac	aagctacttg	ttctttttgc	aggatcccat	60
cgattcgggt	atttacttcc	cttatctttg	ggatctgaca	ctaactctgc	aacttactgt	120
ttctgtaccc	catttttctta	cctaaaagga	ggttaataat	atgactcatc	tcacaaactt	180
gttgcgaaga	ctgaataaga	taaagcgtgc	aaagtcttaa	gaagaagaca	tggcatttag	240
taactaataa	aaaatgtcac	ctctctcagt	atcattatta	ccttagaaaa	agtccttctc	300
atthttcatca	gaggccaggc	acatagttag	ggttcaaaaat	gcagttgaca	aactgactga	360
attagcatag	tcttttaaaa	ctggaccctg	gaaccatata	ccctgtttgt	ccttccctgc	420
cccatgggta	agcaaataatc	tccactgcct	gggcta			456

<210> 627

<211> 458

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(458)

<223> n = A,T,C or G

<400> 627

tctanaatac	aagctacttg	ttctttttgc	aggatcccat	cgattcgctc	aggaggctga	60
ggtaggagaa	ttgcttgaac	ccaggagaca	gaggctgcat	tgagccaaga	tcacaccact	120
gcactccagc	ctgggcagca	gagcaagact	ccatctcaaa	aaaaaaaaaa	nnaaaannaa	180
aaanagggtt	atncnttcat	ttntggnggg	ggnanaaana	aaccttggtt	nntntnaaag	240
gggnnaaggn	ggnagggncc	ttnaaacnnt	tntttncnaa	nctntcnngg	nggttnccag	300
naccnntact	gtncnnaaan	gggttcnntt	ttnanctnnn	tengtttngt	aancanccan	360
cccantngng	gggatntnaa	agggncctna	gnacntntac	cnntggggng	gccccnttnc	420
ccaaatagtt	aaaaaaaaaa	ttgttntggc	ancctggt			458

<210> 628

<211> 475

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(475)

<223> n = A,T,C or G

<400> 628

ttggnnccct	ttttgnactc	tanaatacaa	gctacttggt	ctttttgcag	gatcccatcg	60
attcgctgac	ctctgtgagc	tcagtctgct	ctatgctgag	ctggagggtg	agctgtcgcc	120
agaagtgaga	agggctgcca	cagctcgagc	tggtcacata	ttaaccaagc	tgactgagag	180
cagccccat	gggccctaca	ctggacaggt	ggtggctggt	cacattttga	aagcgcgaaa	240
ggcttatgag	cacgcactgc	aggactgttt	gggtgacagc	tgtgtctcca	atccagctcc	300
caccgattcc	tgtagccgcc	taattagcct	ggctaaatgc	ttcatgctct	tccagtattt	360
gaccataggg	attgatgctg	ctgtgcagat	atacnaaaca	ggtgtttgca	aaactgaaca	420
gttctgtttt	cccagaagct	ctggcgaggg	ggacagtgcc	agctcccaaa	gttgg	475

<210> 629

<211> 451

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(451)

<223> n = A,T,C or G

<400> 629

acccnttttg	ggnactctan	aatacaagct	acttgttctt	tttgcaggat	cccatcgatt	60
cgctgcaaat	ttagagctta	caagatgcta	atggcacctc	agtttccagg	atagtctctg	120
cagactgctt	tcactcagca	ggcttccttt	catgatggct	gccagtaaca	gctacccttc	180
atttacatcc	agcagagatg	aggggtatct	cttcggggag	ttcatgcaaa	aaaaagcaag	240
aaaagctgaa	atottctcac	ttcaaaggaa	tggcacatga	cagcacttag	ccaataaagc	300
attctcttct	gggactttgc	aatgcaagca	aatgaaacca	ggaacacatg	gcattttattc	360
accccagggg	gttgtccaaa	gcagactatt	gcagctagtc	tgcaatgaga	ccactgctga	420
ggaaactact	ttctagcatt	ctggagttat	c			451

<210> 630

<211> 461

<212> DNA

<213> Homo sapiens

```

<220>
<221> misc_feature
<222> (1)...(461)
<223> n = A,T,C or G

<400> 630
ccttnnnnnnn nnnttttgna ctctanaata caagctactt gttcttttttg caggatccca      60
tcgattcggtt cagcctagca gccatgatgc cctcggaacc tggccctatg gtatggatgt      120
gaggactacg cactggctgc cctgagcccg gggctggaaa tcatcttttg ctgccaaagga      180
tctggaccta ttttggagtg gagagtcacg gttaaaattc ccagcccggc ccaggtacgg      240
gaatcccagc attttgtgag gccgaggcag ggggatcacc tgaggtcagg agtctctact      300
aaaaatacaa aaattagaca ggtgtggtgg tgggcgccac tcaggaggct gaggcaggag      360
aatcacttga acccgggagg cagagggtgc agtgagccag atcatgctgc tgcactccag      420
cccgccgcgt caccgtgtgt gttgctgggt gctggggctg t                                461

```

```

<210> 631
<211> 474
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(474)
<223> n = A,T,C or G

<400> 631
tttggncenn tttngnactc tanaatacaa gctacttggt ctttttgcag gatcccatcg      60
attcgctgga atggtttctt cttacaatca gaatagttag gatgtaatat atttttgagt      120
gggcatttaa agtgaaaagg tacatattta catagacaca ggtgataatg tatctatgta      180
aatgcctttt gattctgcaa ctgcaggata ctctcatcaa agacacagat aaaaagcctc      240
tgtgtttcca aggccttgcc ctatacctaa cacataatat gtccaaatgg atgaagagga      300
ggcaaggaca aggatgtgat gacaaaacat tctgttatgc acttgttagca tttatgtttc      360
ttcctggggg attttataat actaaaagaa tcataatata aagagatgat taaaaaaaaa      420
atactgccgg gcacggnngc tcatgcctgt aatcccagca ttttgggagg ccga                                474

```

```

<210> 632
<211> 410
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(410)
<223> n = A,T,C or G

```

```

<400> 632
cccacatcca gtcttctcca taggacaacc tgtctgctga aaggggctac ccactacaag      60
actcctctct tctgaaagct ggagactcct caggatgatc tgcccnttng aatnatngnc      120
ccacnnatat aatacnatga gagccnatgn cgccgctcan tcaacanaaa tgtgttcna      180
ataaaccncn nttatgngag tagntctgct tgnttcctng aggnnnnaac ncgancatn      240
anacctgnnn anctaangga ntttaagatg cctgcctann cnnaagantg gaggtgnnct      300
ttgttanntt gacgnttctt ttnntnatat natnngacna aattatangc aatgtttngg      360
gannntacna nanngncacn acaaatgcct tactttacaa nccttttgtg                                410

```

```

<210> 633
<211> 466

```

<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(466)  
<223> n = A,T,C or G

<400> 633  
tttgaaccnt ntatacaagc tacttggtct ttttgcagga tcccatcgat tcgaattggc 60  
acgagctgct gctcccttct gggttccgag gccatttgc gtcattgccc canngagagg 120  
aagggaggtg angntatcgt ccgnggcccc agnagccent ttncennntt ggncnangnc 180  
cnaantnntt tntatntcat atnanncnac tatataanga ataaacntga tcttntnann 240  
tntnaaatta tnancatagt nanaggtaat tacacatnnt attnnaacaa cnnttggnat 300  
ctataanttg ntcnttnnta tantaatant tttttncatt nannnnntn atatnctaaa 360  
attttnaaat attanntatc tntgatnggt nngnaatgct tacacttttt gancttatnt 420  
atgggaangn aggggggtgnc ntcnnnnntn tnanaannnt ntttcc 466

<210> 634  
<211> 387  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(387)  
<223> n = A,T,C or G

<400> 634  
cttcctctgg aaatattctt ctctttgaca ttttgggtag aaaatgaaaa ttcttgtatt 60  
gtttactgtg ttaaataaag agctttaaca aaggctacaa agctgatgtg tcatatttct 120  
tttatactct cttgaaagat gatgcaatac tttgggcaaa gcaataagaa aactgaagaa 180  
ggatgaaacg gttatcactt atttccttat taccgtcact tttagataaa tccatcatgt 240  
ttccattttc tttggatttt tttctttctt ttacagttta catgcattgt agaataataa 300  
agccgttctt ttcaagacct tttataaatc ctgntatctt gctggctggc tcacattgan 360  
nnctgggaag gccagcctgc antggct 387

<210> 635  
<211> 406  
<212> DNA  
<213> Homo sapiens

<400> 635  
ccgcctccgt cgcacagtcg ggaggctttg cagtgaactt cgaccacttc cagatccttc 60  
gggccatttg gaagggcagc tttggcaagg tgtgcattgt gcagaagcgg gacacggaga 120  
agatgtacgc catgaagtac atgaacaagc agcagtgcac cgagcgcgac gaggtccgca 180  
acgtcttccg ggagctggag atcctgcagg agatcgagca cgtcttcttg gtgaacctct 240  
ggtactcctt ccaggacgag gaggacatgt tcatggctcg ggacctgcta ctgggcgggg 300  
acctgcgcta ccacctgcag cagaacgtgc agttctccga ggacacagtg aggctgtaca 360  
tctgcgagat ggcactggct ctggactacc tgcgcggcca gcacat 406

<210> 636  
<211> 391  
<212> DNA  
<213> Homo sapiens



```

<400> 636
ccactgccgt ctccgccgcc actgggcccc cagagcccca gcccagagc ctaggaacct      60
ggggcccgct cctccccctt ccaggccatg aggattctgc agttaatcct gcttgctctg      120
gcaacagggc ttgtaggggg agagaccagg atcatcaagg ggttcgagtg caagcctcac      180
tcccagccct ggcaggcagc cctgttcgag aagacgcggc tactctgttg ggcgacgctc      240
atcgcccca gatggctcct gacagcagcc cactggctca attcccctac atagttcacc      300
tggggcagca caacctccag aaggaggagg gctgtgagca gacccggaca gccactgagt      360
cttcccccac cccggcttca acaacagcct c                                     391

```

```

<210> 637
<211> 399
<212> DNA
<213> Homo sapiens

```

```

<400> 637
caccaacact gaggtgttga ggaacatggg ctttgcagca aaagcgatga aatctgttca      60
tgaaaacatg gatctgaaca aaatagatga tttgatgcaa gagatcacag agcaacagga      120
tatcgcccaa gaaatctcag aagcattttc tcaacggggt ggctttggtg atgactttga      180
tgaggatgag ttgatggcag aacttgaaga attggaacaa gaggaattaa ataagaagat      240
gacaaatatc cgccttccaa atgtgccttc ctcttctctc ccagcacagc caaatagaaa      300
accaggcatg tcgtccactg cacgtcgatc ccgagcagca tcttcccaga gggcagaaga      360
agaggatgat gatatcaaac aattggcagc ttgggctac                                     399

```

```

<210> 638
<211> 465
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(465)
<223> n = A,T,C or G

```

```

<400> 638
atttgaancc ttttгнаacc nnnaaacaag ctacttgttc tttttgcagg atcccatcga      60
ttcgtatctc aattgattgc tcacagtcag ttacagattt aaggccttgt tccactcttt      120
ctcctctttc caccgccgca cttgactaat cttaaaaaaa gagagagaaa gattttgtgc      180
tcttttctgt atgtatgtta tattttactt taaaagaaag tggagggggg tggctgcat      240
catagccacc aggccacaca tatgcaaatt agagtcttcg agcaacagggt gattccaata      300
tacaccctgg ccaatggctg agctagctag acaaaagcct ttattttctt taaaaagatt      360
ttggggccga acaaggtggc tcacgcctgt aatcccaaca ttttgggagg ccaaggcggg      420
tggatcgctt gagcccagga gttcaacatg ggcaacatgg caaaa                                     465

```

```

<210> 639
<211> 456
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(456)
<223> n = A,T,C or G

```

```

<400> 639
tcttgccctt tatcaagcta cnngaacnct tgnacggccc ttggnntttc tgenggatcc      60
catcgattcg cttaagtgtg aaatgcaaaa ctataacatt cccagaagaa cacaggagaa      120

```

aatctgtgtg	atctggagtt	tggcaatgta	tttttagata	caatacaaaa	agcacacctc	180
atgaaaacaa	ttgatacatt	tgactttatt	aaagttaaaa	tcttctgcat	tgcaaaaaaa	240
ctaagagaat	gaaaatccaa	gtcataaaact	gggaaaaaaa	tgtttgcaa	atttatatct	300
gataaagaac	ttgtatccaa	aatatacaaa	gaactcttta	aatccncnat	aagaagacaa	360
ccaatttta	aaataagcaa	agatcttaat	aaacatctca	ccagataaga	tatgcagatg	420
gaaaataanc	ntgaaatgat	gctcaacatc	attagc			456

<210> 640

<211> 455

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(455)

<223> n = A,T,C or G

<400> 640

ttggttncta	tacacaagct	cttgttcttt	ttgcaggatc	ccatcgattc	gaaaaagctt	60
ttagtgggaa	atcagatctt	attagccacc	agagaactca	cactggggaa	aggccctaca	120
aatgtaataa	gtgtgagaaa	agttaccgac	accgttcagc	cttcattgta	cataaaagag	180
ttcatactgg	ggagaagccc	tataagtgtg	gtgacctgtga	aaaatgcttt	ggccagaaat	240
cagaccttat	cgtgcaccag	agagtccaca	caggtgagaa	gccgtataaa	tgcctggaag	300
tatgagaagt	tttactcgga	gtgccaacct	aattaggcac	caggcaactc	acactcacac	360
ttttaaatgc	cttgaatatg	aaaaaagctt	taactgtagc	tcagatctta	ttgtcatcag	420
agaattccat	ggaagagaaa	ccacatcagt	ggctg			455

<210> 641

<211> 375

<212> DNA

<213> Homo sapiens

<400> 641

gagagtgtga	atggccccgac	tgttgagtga	gggggagcag	gggatcccaa	cggcttgccg	60
tgcccttgcg	cagcagccgg	cgggcggcca	cgctcgggcc	tggttgggga	gttgtaagac	120
gttcacogcc	gtgttatcct	tgagtaaaga	agcgggcttt	tgccatgttg	tccaggctgg	180
tctctactcc	tgggctcaag	cagtcctcct	gcctcagctc	cccaaagtgc	tgggaattaca	240
gggaatgaac	tctggaagcc	cagccaggga	caatgcacct	tcacagagat	tctgcactaa	300
tctgagtga	ggtctaaggt	ttggaatctc	ccccctcatg	agagaagctt	tgtatggctg	360
tcattgcttaa	acagt					375

<210> 642

<211> 386

<212> DNA

<213> Homo sapiens

<400> 642

cccactcggg	ggctgcgcct	gcgcgttgga	gaccgtgctc	ctcagttctgc	ggttcccgcga	60
gatacagccg	ctgccccgga	ggtggggcca	gtgctgcgac	ctctctatat	ggatgtgcaa	120
gctacaactc	ctctggaccc	ccgggtgctt	gatgccatgc	tcccttacct	aatcaactac	180
tatgggaacc	cacactcccg	gacacatgct	tatggctggg	agagtgaggc	agccatggaa	240
cgtgctcgtc	agcaagtagc	atctctgatt	ggagctgac	ctcgtgagat	catttttact	300
agtgggtgcta	ctgaatccaa	caacatagca	attaaggggg	tggccgattc	tacaggtcac	360
ggaaaaagca	cttgatcacc	accag				386

<210> 643

<211> 377  
 <212> DNA  
 <213> Homo sapiens

<400> 643  
 gtcaacagaa ggagagcgaa agcaaattga agcacaacag aataagcagc aggccatttc 60  
 agagaaaagat cgggggaatg gatttttcaa agaggggaaa tatgaaagag caattgaatg 120  
 ctatactcga gggatagcag cagatggtgc taatgccctt cttccagcta acagagctat 180  
 ggcctatctg aagattcaga aatatgaaga agctgaaaaa gactgcacac aagccatttt 240  
 attagatggc tcatattcta aagcttttgc cagaagagga actgcaagaa catttttggg 300  
 aaagctaaat gaggcaaaac aagattttga aactgtttta cttctggaac ctggaaataa 360  
 gcaagcagta actgaac 377

<210> 644  
 <211> 493  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(493)  
 <223> n = A,T,C or G

<400> 644  
 tgaaccctac gttatctttc tgtnaaagcc cctcgggatt tttgcaggat cccatcgatt 60  
 cgccgccgcc ggtgacctcg gcggagatca tttggcattt agctgtgatg ttgctaaaga 120  
 acatgatgtt caaaatacat ttgaagagct ggagaaacat ttaggtcgag taaatttctt 180  
 ggtaaagtca gctggtatta acagggatgg tcttttagta agaacaaaaa ctgaagatat 240  
 ggtatctcag cttcatacta acctcttggg ttccatgctg acctgtaaag ctgccatgag 300  
 gactatgatt caacaacagg gagggctctat tgtaaatgta ggaagcattg ttggcttaaa 360  
 aggcaactct ggccagtccg tttacagtgc cagtaaagga ggattagttg gatttttcacg 420  
 tgctcttgct aaagaggtag caagaaagaa aattanagtg aatgtagttg caccagtgca 480  
 atacttgtat gga 493

<210> 645  
 <211> 384  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(384)  
 <223> n = A,T,C or G

<400> 645  
 gccgccgctg gtgcttattc ttttttagtg cagcgggaga gagcgggagt gtgcgccgcg 60  
 cgagagtggg aggcgaaggg ggaagtgttg gaggttttta aattcccctg catttatata 120  
 gtccctaccc ctatatgttn cagatcnctc aggacctgtc aaacttaacn ntncctactt 180  
 tcgatttgac cntactacn cnaactggaga cctgnatgcc anccgcncctg tcccatttga 240  
 actnnngccc aancattttt gagtttttta cncctctn nctttcctnc ccttncanc 300  
 ntncntnttt tctgtccnc cgnactttcc cacctactta tntngattnc attctgaaaa 360  
 nttttttcat gacnaaantc tttc 384

<210> 646  
 <211> 457  
 <212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(457)

<223> n = A,T,C or G

<400> 646

tctagaatac	aagctcttgt	tcttcttgc	ggatcccatc	gattcgggtcc	acccaatgat	60
ttggaatgtg	ccttgagccc	atatgccttg	taatacaaac	tcgtctccct	cccatttgga	120
atagccacca	atcaagattt	aatccggctg	gttgcataca	cacaggatgg	agtgatgcat	180
cccaggacaa	ctttcctcat	ggtagatgag	gaacagactg	ttccttttgc	cttgagggat	240
gaaaacctga	aaggagtggg	gtatacaaca	cgaccactac	gagaagcaga	gacctaccgc	300
atgaggggtc	gagcctcatc	ctacagtgcc	aatgggacca	ttgaatatca	gaccacattc	360
atagtttata	tagctgtgtc	cgcctatcca	tactaaggaa	ctctccaaag	cctattccac	420
atatttaaac	cgcattaatc	atggcaatca	ngccccct			457

<210> 647

<211> 386

<212> DNA

<213> Homo sapiens

<400> 647

gcggcttagt	cggtggcggc	cggcggcggc	tgcgggctga	gcggcgagtt	tccgatttaa	60
agctgagctg	cgaggaaaat	ggcggcggga	ggttagccac	ccagtagagc	tactgagttc	120
catcctggta	ctggggaatg	tctatagaga	ctcctgtgat	gtgatccatc	ttcagatctt	180
gcagccatga	ctactagcac	ctgctccagg	tcccacgtgt	ttcaatggac	atttgtctcc	240
atcatagcca	catcacacca	cagatttgat	ttttcagttc	atttggtcaa	atgccactca	300
aaacaagaaa	tgctaaagga	gaagaagagt	ccagttcaag	atctgcattt	cattttctgat	360
gttggcccaa	caactttttc	tttcag				386

<210> 648

<211> 401

<212> DNA

<213> Homo sapiens

<400> 648

gtccgagtgc	tgctcatgct	gcggaagatg	ggatcaaacc	tgacagccag	cgaggaggag	60
ttcctgcgca	cctatgcagg	ggtgggtcaac	agccagctca	gccagctgcc	tccgcactcc	120
atcgaccagg	gtgcagagga	cgtgggtgatg	gcgttttcca	ggtcggagac	ggaagaccgg	180
aggcagtagc	tgcaaagccc	ttggaacacc	ctggatgctg	ttgagggcca	agagatctgt	240
gtggctcctg	ggccggctga	gtggcagcag	cccccttgc	cccacctccc	ccttccccta	300
cccaaccctg	ccctgcccc	ccccacctca	cagctactca	gtggggctgg	catcaaggga	360
gacaccagtg	gtgcgtttat	aattggctta	aagggatgga	c		401

<210> 649

<211> 377

<212> DNA

<213> Homo sapiens

<400> 649

aaacaattga	aattggactg	gaaatggagt	gggcgaagta	aatacacacg	ttaccagagt	60
gttgagtttg	ggcactctta	acagtcatta	ttactcagtg	tttattgata	aatcagacaa	120
aattgccatc	ttagttttga	gtgtctaaat	taggtgataa	tggttattat	aatttggtta	180
ttttgcatga	ctcaagctag	taagtaaata	cactctgtaa	tctcaaccaa	ttttttaatt	240
tgttaaatac	tatcattgtc	aacatctttt	ttcatttgct	tcagacttaa	tgaacaagcc	300

agtgaggaga ttttgaaagt agaacagaaa tataacaaac tccgccaacc attttttcag 360  
aagaggtcag aattgat 377

<210> 650  
<211> 368  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(368)  
<223> n = A,T,C or G

<400> 650  
tgggtcactg cccctcctgc cagcggtctt tcatggctct gctcctcaag ggcgtaacctt 60  
tcaccctcac cacggtggac acgcgcaggt ccccgagcgt gctgaaggac ttcgcccccg 120  
gttcgcagct gcccatctgc gtcttngna caaannatcc nttnnccaga tnnncaanta 180  
nctgacattc atacggagtc aanacacgtt tctgangact ggntnntana nnttncgtn 240  
tntttaacag ccattgngcc ctgantgntt nngagagcgt gaaaatttct ntganctgnt 300  
cagcatgacc ggancaaant agagnatcaa gancatncga tccaaattat ncggctcctc 360  
atgcggtg 368

<210> 651  
<211> 389  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(389)  
<223> n = A,T,C or G

<400> 651  
gtagcggccg gagccgtgcg agttctctac cctgcttcgc gagcgggcca gagaacgcga 60  
gtcccaggat ccccgccacc cagttctctt ccactgcatt ccccgccgc gtgtgggacc 120  
gaggtggaca tggatccgca gaggtccccc ctattggaag taaaggggaa catagaactg 180  
aagagacctc tgattaaagc cccttcccag ctgcctctct caggaagcag atcaagagga 240  
ggcctgacca gatggaagat ggcctggagc ctgagaagaa acggacaaga ggctgggtg 300  
caacgaccaa aattaccaca tcccaccaa gagttccatc cctcactaca gtgccacaga 360  
cacaaggcca gaccacagct naaaaagtt 389

<210> 652  
<211> 386  
<212> DNA  
<213> Homo sapiens

<400> 652  
actgcctctc tagattccac ctctgtgggc agggcatatc ggaacaaaag gcagcagccc 60  
tagtcaggga cttatagtta aaaccctcat cccctggga cagagcacct ggggaaaggg 120  
gcagctgtgg gcacagcttc tccagacttc aatgtccctg cctgacagct ctgaagagag 180  
cagtggttct cccagcatgg cattcaagct ctgggacaga ctgcctcctc aagtgggtcc 240  
ctgaccgctg tgtagcctga ctgggagaca tctcccagta ggggccaaac gacacctcat 300  
acaggagagt tctggctggc atctgggtgg cgccccctct ggacgaagct tccagaggaa 360  
gtatcaggca gcaatatttg ctgttt 386

<210> 653

<211> 332  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(332)  
 <223> n = A,T,C or G

<400> 653  
 cccctgaac ctccctccct ctgcctagac actgggggtac ccctccagat gtgggggacat 60  
 tccaccccag tgggggacagc cattccccta cctgctccag gagcctggat tggctttaaa 120  
 tggctcatca tcttccagct tcttaaactt agcgctgtt cccagactgg agaccttggg 180  
 atgggggagg tgtgggagggt tttctcnnnn nctgactcan ccactncctn ggctgtggna 240  
 nnntnagggn gnnggctctg gatcangcnc cngancctgt gcaggttnc ctttgnna 300  
 nttccccnnn nnannnnann anngacatga tg 332

<210> 654  
 <211> 382  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(382)  
 <223> n = A,T,C or G

<400> 654  
 aggctctagc ccaactccca ggtgggtccat tttgggtccat attatattttt ttcattgcttt 60  
 taacttttggg tctcgattct cagtttgcct cgattgaaac gatcacaaca acaattcaag 120  
 atttattttcc caaagtgatg aagaaaatga ggggttcccat aactttgggc tgctgcttgg 180  
 ttttgtttct ccttgggtctc gtctgtgtga ctcaggtctg aatttactgg gttcatctga 240  
 ttgaccactt ctgtgctgga tggggcattt taattgcagc tatactggag ctagtgtgaa 300  
 tcatctggat ttatggaggg aacagattca ttgaggatac agaaatgatg attggagcan 360  
 agaggtggat attctgctat gg 382

<210> 655  
 <211> 397  
 <212> DNA  
 <213> Homo sapiens

<400> 655  
 agtggctgct gcgttttctg gtctgagtcc ttcttgggtt ctaattgaggg cgcgggttctg 60  
 ctgtgcccgg ccgcgaggt ctaaggcatg ggcttccagc ctccggccgc tcttcttttg 120  
 aggcttttcc ttctgcaggg catcctgagg cttctgtggg gggacctggc tttcatccct 180  
 ctttttatcc gaatgtccgg ccctgcggtc agcgctgcc tggtcggaga caccgaggggt 240  
 gtgaccgtgt ccctggcagt gctgcaggac gaggcgggaa tattgccaat tccgacgtgt 300  
 ggagtgtctga acaatgagac ggaagactgg agcgtgactg tgatccccgg tgcgggtgtt 360  
 gaagtgcag tgaggtggaa aagaggtctg gactgggt 397

<210> 656  
 <211> 396  
 <212> DNA  
 <213> Homo sapiens

<400> 656

gcaagaaggg	gctgactctg	aaccaggaag	ctgtgctgtg	ctcaccagac	actttgatct	60
tggactttct	agcctccaga	actgtgagaa	agagatttct	attatttata	agccaccag	120
tagatggtac	tttgttacag	cagcctgaaa	ggactaagac	accgacctag	tctccctgat	180
gaaaaagttt	ctctcagact	tctacccttt	ccaatgtggc	caaagctttt	cattccgaag	240
aagtttcctt	tctgagaacg	ctcattgtgt	cgtttggctt	tccccgtctc	tgcttgacac	300
atgaaccaaa	acagaggcag	ccaaagcagg	gaaaaaaaaa	tcctaggatc	agagtccact	360
ctatgccctt	ttgagcttca	aaaggagaaa	gagaca			396

<210> 657

<211> 369

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(369)

<223> n = A,T,C or G

<400> 657

cagtctcctg	ccggaagaaa	tgggttgagc	ccgaaaggag	gctgtctgag	gaagggagag	60
ggagggctgg	ggttttcctt	cccctcccta	caccatttcc	ttcctggatc	gcacncnggn	120
aattctntct	gctncaatt	ctntccagan	ccctntnant	ngncnccana	caaatanancc	180
atntttncnn	nctttccgac	aacacattna	nttctcnan	ntgccaaacg	cattgggaaa	240
gaccttaaca	acacntttgn	ccatctgtng	aaacttacia	totttgcaaaa	ancaagtacc	300
tnntttntga	tnaancacng	naaatTTTnc	accttanctn	ttcatcanac	cggacattat	360
ctnccacac						369

<210> 658

<211> 379

<212> DNA

<213> Homo sapiens

<400> 658

ccagtcagcg	gggtggtctc	ctgggtcccc	agcctcgcca	ttctgtgggg	ggtggtgact	60
gggcgaactc	tcagatgcct	cagcaccctc	ccaccccttc	ctcaggcaga	acgagatctt	120
gtggcgggag	gtggtgacac	ttcggcagag	ccacggcggg	gccgagcaat	gcaggaggca	180
agagaaagct	gtccctgatg	ctggatgagg	ggagctcatg	cccaacacct	gccaaagtta	240
acacctgccc	tctacctggt	gcccttctgc	aggaccccta	cttcatccag	tcgccctcac	300
agggccaggg	gccccatcat	ctctgacatc	ccagaagact	ctccatcccc	tgaggggacc	360
aggctttctc	cctccagtg					379

<210> 659

<211> 389

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(389)

<223> n = A,T,C or G

<400> 659

ccagtcagcg	gggtggtctc	ctgggtcccc	agcctcgcca	ttctgtgggg	ggtggtgact	60
gggcgaactc	tcagatgcct	cagcaccctc	ccaccccttc	ctcaggcaga	acgagatctt	120
gtggcgggag	gtggtgacac	ttcggcagag	ccacggcggg	gccgagcaat	gcaggaggca	180
agagaaagct	gtccctgatg	ctggatgagg	ggagctcatg	cccaacacct	gccaaagtta	240

acacctgccc	tctacctggt	gccctttctgc	aggaccccta	cttcatccag	tcgccctcac	300
agggccaggg	gccccatcat	ctctgacatc	ccagaagact	ctccatcccc	tgaggggacc	360
aggctttctc	cctncagtga	tggcaggaa				389

<210> 660  
 <211> 395  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(395)  
 <223> n = A,T,C or G

<400> 660						
agaaggctgg	ataattggag	gaggcagaaa	attagtgcag	agaagatggc	caaattgcag	60
tttctgaggt	catcagagaa	gatttgccag	aggtttctgc	ttacccaagg	gaagtaatgt	120
taaaggggtca	tgtgtttttc	tgaagcaaag	tatcgctttt	acagagaaat	ggctgctacc	180
tagggccagt	gccttcacag	tttggttatg	ctaagtagaa	gatacagatt	tgtaatgcct	240
aaattctcac	acttctaata	ctacagtcca	attattctgg	catttgctac	aatgtgctct	300
gaagaaatgg	attggaaata	nncnnncnnn	tnantaaata	antaattcca	caggaggaaa	360
aaaatgcgtt	ctgaanggat	caggattttc	aaagc			395

<210> 661  
 <211> 464  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(464)  
 <223> n = A,T,C or G

<400> 661						
agaacccttt	gaaanntntg	naaccataa	tacaagctac	ttgttctttt	tgcaggatcc	60
catcgattcg	agggagcgaa	gcagcgcggg	cagcgagcga	gatgcacac	cgaggcttcc	120
tcctcctcac	cctcctcgcc	ctgctggcgc	tcacctccgc	ggtcgccaaa	aagaaagata	180
aggtgaagaa	gggcggcccg	gggagcgagt	gcgctgagtg	ggcctggggg	ccctgcaccc	240
ccaacaccaa	agattgcggc	gtgggtttcc	gagagggcac	ctgcggggcc	catttgcgtc	300
attccccata	gatatccttg	caantnaatn	ngngttttgc	tnaaagcaat	ntnttnccaa	360
accctagann	tgacctctca	ntgccctaata	nanngcttgt	tcntggtgan	cnntctatgc	420
cctgnatann	gcttntnttt	ctttgcccaa	anccaaaaaa	aaaa		464

<210> 662  
 <211> 446  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(446)  
 <223> n = A,T,C or G

<400> 662						
atggagnnaa	nnaaactctt	antacaagct	acttgttctt	tttgcaggat	cccatcgatt	60
cgctcggggc	ccgatgtccc	gacacggcgg	cgctcggtac	agctccgggc	ggccacgggc	120



agaatgaaaa	cggccgcact	gggacacgac	ctggacgggc	aggacgcgga	tgaggatgcc	180
agcggctctg	gagggggaca	gcagtatgca	gatgactgga	tggctggggc	tgtggctccc	240
ccagcccggc	ctcctcggcc	tccataccct	cctagaaggg	atggttctgg	gggcaaagga	300
ggaggtggca	gtgcccgcta	caaccagggc	cggagcagga	gtgggggggc	atctattggt	360
tttcacaccc	aaaccatcct	cattctctcc	ctctcagccc	tggccctgct	tggacctcga	420
taacggggga	ggggnggcct	gnatca				446

<210> 663  
 <211> 394  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(394)  
 <223> n = A,T,C or G

<400> 663						
gggcggtgtt	ggtttttcgc	tcgtegactg	cggctcttcc	tcgggcagcg	gaagcggcgc	60
ggcggtcgga	gaagtggcct	aaaacttcgg	cgttgggtga	aagaaaatgg	cccgaaccaa	120
gcagactgct	cgtaagtcca	ccggtgggaa	agccccccgc	aaacagctgg	ccacgaaagc	180
cgccaggaaa	agcgctccct	ctaccggcgg	ggtgaagaag	cctcatcgct	acaggcccgg	240
gaccgtggcg	cttcgagaga	ttcgtcgtta	tcagaagtcg	accgagctgc	tcatccggaa	300
gctgcccttc	cagaggttgg	tgagggagat	cgcgcaggat	ttcaaaaccg	acctgaggtt	360
tcagagcgca	gccatcngtg	cgctgcagga	ggct			394

<210> 664  
 <211> 385  
 <212> DNA  
 <213> Homo sapiens

<400> 664						
gtgggacgcg	ccgagccgga	ggctgcagga	tgatgcgggt	catgctatta	ttcagccggc	60
agggaaaact	gcggctgcaa	aaatggtacc	tggccacttc	ggacaaggaa	cggaagaaga	120
tgggtgcgca	gctcatgcag	gttgtcctgg	ctcgaaagcc	caagatgtgc	agcttcctgg	180
agtggaggga	cctcaaagtt	gtctataaga	gatatgccag	cctctacttc	tgctgcgcca	240
tcgagggcca	agacaatgag	ctcatcacac	tggagctgat	ccaccgatac	gtggagctct	300
tagacaaata	ctttggcagt	gtgtgcgagc	tggacatcat	cttcaacttt	gagaaggcct	360
acttcacctc	ggatgagttt	ttgat	.			385

<210> 665  
 <211> 368  
 <212> DNA  
 <213> Homo sapiens

<400> 665						
gcaattttaa	tcaaaattaa	agcttgaatc	tctaaaactg	gctaacctca	tctggaacat	60
gtggctcccc	cttgcaccta	agatcacctt	ctccattgtc	taccaggcta	gcgtgagcca	120
cacctgttca	gtttttcaac	tatcagctaa	gagaaagact	tcattaatat	ttggaggata	180
caggccgggc	acagtgtctc	atacttgtaa	tcccagcact	ttgggagggt	gaggcagggtg	240
gattgcttga	ggccaggggt	tcaagacctg	cctggcaaac	acggtgaaac	cccatatcca	300
caaaaaatat	gaaaattagc	cagacatggg	ggtttgtgcc	tgtaatcca	tcttcttggg	360
aggctgag						368

<210> 666  
 <211> 368

<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(368)  
<223> n = A,T,C or G

<400> 666  
gatcttctga ggctcaggagt tcaagaccag cttggcccac agggcgaaac tccatctcta 60  
ctaaaatata aaaaattagc caggcatggt agcagggtgcc tgcaatcca gctgctcggg 120  
aggctgaggc aggagaatca cttgaacctg ggaggcagag gttgcagtga gctgagatcg 180  
cgccaccgca ctccaccctg ggcgacacag cgagactctg tctcagaaaa agaaacctcc 240  
cttgaattga aacttcgata tgaaggttgc aacccttcct ttttgttggt gtggcttggc 300  
anattcntng ngctcctggn tgtatctcct gagncncttg tttcaaaacn gncnttggtc 360  
ggcacatg 368

<210> 667  
<211> 402  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(402)  
<223> n = A,T,C or G

<400> 667  
tagaccagcc tgctcaacat ggtgaaaccc catatctact aaaaatacaa aaaattagcc 60  
aggcgtgttg gtgcgcgcct gtatcccggt tactcaggag gctgaggcaa gagaatagct 120  
tgaacctagg aggcagagggt tgcagtgagc caagattgct cactgcact ccaacctgag 180  
tgacagagcg agactccgct cccctcccca aaaaacaaaa aaaaaangaa gaaangaaac 240  
cngaaanttn tttttttcnt ancaaagtnc ncanacnttt taagtngact nttgacaaac 300  
ctagttnatg aacaatngnt tntntatgta gcatttngnt ttttttattg ncanagnaaa 360  
aaaaggcata tttccatgac tacttttaaan ggnntttttt tg 402

<210> 668  
<211> 383  
<212> DNA  
<213> Homo sapiens

<400> 668  
gggaaagtct aggagtagga ctgtgttttc cagtgaatgg aaaacttcaa atgtgacttg 60  
gcaatgcttt tgagtagcac atgagcacct agtacttgga aaaactgaga tacagctctg 120  
ttcaacttcg agtgctcaac ttcactaaat cacagtaatg agacctttga gataggagaa 180  
atctgtaacg gagccacaga agaatacttt ttggaaagggt ctttccgggt tgatccagga 240  
gtttatcagc attctggtac ttcattgtatt tgcattttgt gcctttaagt aaatacacat 300  
ctttatgtgt agtaccctca aaactaacct atcaggagac ttctactgt tagagatatt 360  
gtagtttttc tctgatgcct taa 383

<210> 669  
<211> 385  
<212> DNA  
<213> Homo sapiens

<400> 669

gaataataacc	tcaataaagc	tgttataaaa	atatacaatt	cagtgggttct	tagtacattc	60
acagagttgt	gcaaacatca	catctaattc	cagaacattt	tgatcactcc	tcccaaactc	120
catagacaac	acaattttta	ctaagattcc	aattgggatt	tctgtggaac	ttgatgagtt	180
agggccaaaa	gtaatcaaga	tattcatgag	gaaggataac	agaatggcaa	aacttgcttt	240
aataatttgt	gcagggatag	acaaatactg	tacaccagtc	tctcaatagg	gagatcaaaa	300
ccaaattcac	acagacatga	aaagttgatt	tatgacagat	gatgttgcat	tccttgggga	360
aagaatggaa	atggtgctag	aataa				385

<210> 670

<211> 368

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(368)

<223> n = A,T,C or G

<400> 670

caaaaaatag	tacaaattga	cctctgttct	tatttctctat	tgtgagcatt	ataaagataa	60
gctcctatgt	aaaaccttgc	tctcagatga	gtaaaatatg	tatcacagca	tagctcagca	120
ataattcatg	ctcagctgtg	gggacccttg	gggctttttg	aagatgatgg	aaccgcacta	180
gggttgaaac	tgatggctgt	ggagttaatt	gtgttttcga	gcttgaatct	cacctgtgat	240
tttttttttt	taangnnggn	catgactnga	tttttctnat	aagccaangn	atgtgtaggn	300
ttactggatn	tannntnang	gagnggggnt	nnnncctttt	tnnccnngg	gnntnttttt	360
tnngggggg						368

<210> 671

<211> 374

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(374)

<223> n = A,T,C or G

<400> 671

cttccaagta	tctccagccc	agaacccttt	tgagtccagg	acctgtcatt	catatccatc	60
ccagaaccct	tttgaacca	ggacttgtca	ttcatatcag	accaccaaga	gcatttcact	120
acagcctctg	atggtcttcc	ctgtttcctc	acttttgcc	atTTTTTTT	ttttctattc	180
cctcttaagt	gggccacact	tttgttcccc	tacctgaaat	cctgtagcaa	gtccctatag	240
gataggcatg	tggtacagt	tgaagctcct	gagtgggtcaa	cagctacccc	gtgacaacat	300
gccacactcc	atgtgccact	ccctcccgc	gctgctgtgt	cttggcccag	tggtntctcc	360
cggctgacag	cgg					374

<210> 672

<211> 439

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(439)

<223> n = A,T,C or G

<400> 672  
 cccatctcta caaaaaagtt taaaaaatta gccaggcgtg gtggtgcacc tgcgtctta 60  
 gctacttggg aggctgaggt gggaggatcg cttgagcccg gaagcttgaa gctgcagtga 120  
 gctgggatcg tgccactgca ctccaacctg ggtgagagag cgagaccctg tctcaagaaa 180  
 aagaaaaatg cagagaaaca ggagtcttgg ctactccttt agaggcagac tcagaccctc 240  
 ctgcctcaca gctttatctt tgatattgcc ccttacttta tcttgtgcct tgagaaattg 300  
 ctggggagag aggtatgtcc actgggcagc tgtacaggat ggaggatcta gggcgtttcc 360  
 actcccagca gccagggtccc tcacccaag ctcaccact gttggggaga ttatctncat 420  
 accccaaaaa cacattggg 439

<210> 673  
 <211> 372  
 <212> DNA  
 <213> Homo sapiens

<400> 673  
 gttctctgag tctgttttgg catgtgcaga aaggggttct aggcgcagct cagacgtaga 60  
 tggggacgca gatgtgagta cctaggtagg tctggctggg cactgttgga ataagtggg 120  
 gtggctgcca ttactcttta agcattcttg gatctagtgc ctctctgcc actgagtaca 180  
 gaattccttt tcaaattcgg gcttatgagg catgttttga tccaggctgt cgtagcaagg 240  
 gatttgatgc tggagtctgt gactgctgtg cgtgtggagg ctcccggaag gcagccagt 300  
 ctggttactg cttggagttt ggggagctgc cattttggat tgcctacctc atgccttctg 360  
 agaaacatct gt 372

<210> 674  
 <211> 348  
 <212> DNA  
 <213> Homo sapiens

<400> 674  
 tgcagctgtg cgtgaacggc tgccccctga gtgaacgcat cgatgacggg cagggccagg 60  
 tgtctgccat cctgggacac agcctgcctc gcacctcctt ggtgcaggcc tggcctggct 120  
 acacactgga gactgccaac actcaatgcc atgagaagat gccagtgaag gacatctatt 180  
 tccagtcctg tgtcttcgac ctgctcacca ctggatgatc caactttact gccgcagccc 240  
 acagtgcctt ggaggatgtg gaggccctgc acccaaggaa ggaacgctgg cacattttcc 300  
 ccagcagtgg caatgggact ccccggtggg gcagtgattt gtctgtca 348

<210> 675  
 <211> 369  
 <212> DNA  
 <213> Homo sapiens

<400> 675  
 gatgacctgc cggccgcctt tgtggatggc accaccagtg gtggggacag cgatgccaaag 60  
 agcctgcgta togtggaaag ggagagtggc cactatgtgg agatgcacgc ccgctatata 120  
 gggaccacag tgtttgtgcg gcagggtggg cgctacctga cccttgccat ccgtatgcct 180  
 gaagacctgg ccatgtccta cgaggagagc caggacctgc agctgtgcgt gaacggctgc 240  
 cccctgagtg aacgcacatga tgacgggcag ggccagggtgt ctgccatcct gggacacagc 300  
 ctgctcgcac ctcttgggtg caggcctggc ctggctacac actggagact ggcaacactc 360  
 aatgccatg 369

<210> 676  
 <211> 373  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(373)  
 <223> n = A,T,C or G

<400> 676  
 gccagctggt ggactatgcc ccactgccag gaaacaggcg ccggaagggt ctctgacaag 60  
 atctcgcttt cctagggcgg tgaaggcgtt caaaggtcgg gaagggggcg tgggagaagc 120  
 ggggcagcgc tgagccatgc tcgcgaactg tgggtctgtc tgtgaagaga cccagtttcg 180  
 tgggaccacg gtggcgccgt cgctgggagg tgagcttggt acagagcgaa aactacaatt 240  
 cccagcattc ctgtgggtgcc agaactacct tgcgaaagc ctgtgcgaga tttaccccg 300  
 cttccgctcc ttccaccgga aaactctgag gacatgaata atcgcaggct tggcggnctc 360  
 tgntnttcca aag 373

<210> 677  
 <211> 378  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(378)  
 <223> n = A,T,C or G

<400> 677  
 gctgcttcag atgctagagg aggaccaagc tgggtttcgc atcccatga gtctgggaga 60  
 gcctcatgca gaactggatg caaaaggcca gggatgtacc gcctacgac tagctgtcaa 120  
 cagcgacttc taccggagga tgcagaacag cgatttcttg cgggagctcg tgatcaccat 180  
 cgccaggagg ggccttgagg acaaatacaa cttgcagctg aatccggaat ggcgcatgat 240  
 gaagaaccgg ccattcatgg gctccatctc gcagcagaac atccgctcgg agcagcgctc 300  
 tcggatccag gagctggggg acctgtacac gcccgcctcc gggagagctg agtcanggcc 360  
 ttgaaagcct nactggat 378

<210> 678  
 <211> 381  
 <212> DNA  
 <213> Homo sapiens

<400> 678  
 gccggagaag gacaaattct gagtctcttc gattacactc attagctgca gaagcccttg 60  
 tcacaatgcc tataagagct gcagagttga caagagccaa cctggggcac tatggagata 120  
 taaacctttt agatccagat actagtcaaa ggcaagtaga tagtacattg gcagcgctact 180  
 caaaaatgat gtcgccactt aaaaactctt cagatggatt aactagtctt aaccaaagca 240  
 actccacctt ggtagcactc ccagagggtg ggcaggaatt gtcagatggg cagggttaaga 300  
 caggcatcag catgtcctta ctcaccgcat tgaaaaattg agagaaagga cagacaaaaa 360  
 cgcttcagac gatgacattt t 381

<210> 679  
 <211> 423  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(423)  
 <223> n = A,T,C or G

<400> 679  
catttttcatt atcagaacaa caattagatg cccgacgtcg gggattggaa gaatatctag 60  
aaaaagtgtg ttcaatacga gtaattgggtg agagtgcacat catgcaggaa ttccctatcag 120  
aatccgatga gaactacaat ggtgtgtccg acgtagagct gagagtagca ttaccagatg 180  
gaacaacgggt tacagtcagg gttaaaaaga acagtactac agaccaagta tatcagggcta 240  
tcgcagcaaa ggttggcatg gacagtacga cagtgaatta ctttgcctta tttgaagtga 300  
tcagtcactc ctttgtacgt aaattggcac ctaatgagtt tcctcacaaa ctctacattc 360  
agaattatac atcaactgtg ccaggcacct gcttgaccat tcgaaagtgg ntttttaciaa 420  
caa 423

<210> 680  
<211> 409  
<212> DNA  
<213> Homo sapiens

<400> 680  
ccgactggg aagatggacg cagctactct gacctacgac actctccggt ttgctgagtt 60  
tgaagatttt cctgagacct cagagcccgt ttggatactg ggtagaaaat acagcatttt 120  
cacagaaaag gacgagatct tgtctgatgt ggcactctaga ctttggttta catacaggaa 180  
aaactttcca gccattgggg ggacaggccc cactcggac acaggctggg gctgcatgct 240  
gcggtgtgga cagatgatct ttgccaagc cctggtgtgc ggcacctagg ccgagattgg 300  
aggtggacac aaaggaagag gcagccagac agctacttca gcgtcctcaa cgcattcatc 360  
gacaggaagg acagttacta ctccattcac cagatagcgc aaatgggag 409

<210> 681  
<211> 338  
<212> DNA  
<213> Homo sapiens

<400> 681  
ccttttcaaa acccgcccca agccattat caccaggagt gtgtttgaca aggactgcaa 60  
aaggtttctc caggtggatg attttcccat acaggatatg atgccccacg atcagcacag 120  
ggattccctc agtgggtgtaa tgtaggtctc ccaggaggtt tccagctaat ccagtgtgt 180  
agcgagcctc gatctcccc tgtagctcca tcagcaccca ttctgcccagg cctccagccc 240  
tcgcactgga aataacaatt tgcaccatga gctttctgtc tttaaaaagc aagtgaaaac 300  
aagctgcaat ggcggccgca ggagtttttt tttttttt 338

<210> 682  
<211> 280  
<212> DNA  
<213> Homo sapiens

<400> 682  
gcgccagtcc acttgagaat ggaggcaggc acctccttgg aagggaataa ttaactttca 60  
cgttgcctaa tcctgcattt ctggtgttaa tctagtggta ggtttatagc tgaagctttc 120  
tacttaagcc gggtttataa acacgtccac aaaaggatat tttcttataa aaccagagtt 180  
ggcccggcgc agtggctcac gcctgtaatc ccagcacttg ttcgagacaa acctggcgaa 240  
catggtgaaa ccccgctctc acttttataa aaaaaaaaaa 280

<210> 683  
<211> 487  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature

<222> (1)...(487)  
 <223> n = A,T,C or G

<400> 683  
 tttgaanctt tttgnactct anaatacaag ctacttggtc tttttgcagg atcccatcga 60  
 ttogaattcc gttgctccat ggtctactgg catgcactgg actctggaga tgcctcccca 120  
 gtacaggctg tgtttgcccg gggaattgct gccagtggcc acttcactctg tgtgggtgag 180  
 ggagccaagt gcagggcatg gaggggtgct ggggcatgtg ggctgtggcc agganaataa 240  
 tgagggcctg aggaaattgt ggaaagtac aggggaagggg ggaagtggag tggaaatcaca 300  
 gactccagta aaccatggaa gggttcagag ggtcaggggt ggataagaca aggctagtga 360  
 atgaaggggc atggccgttg gagcagtga aggggggtttt gttactaagg tttctgggat 420  
 ggagtaagtg ttgagtatgg tggctggaga cccaggaggg tcaggaagtc atcactgnag 480  
 tactggt 487

<210> 684  
 <211> 428  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(428)  
 <223> n = A,T,C or G

<400> 684  
 ttgagnctt ttgtgnactt agaatccnct cnnggacttt ntgcaggatc cctccnttgc 60  
 tntnnngcna ccgngnttg agtgctcata gtacatctgc aaccgcgacc atggtcggga 120  
 agaacaagca gcgaactaaa gggaacctga ggccttcaaa cagtggccga gctgcagaac 180  
 tccttgccaa agaacagga acagtgcctg gatttatttg ttttggaaac tctcagagtg 240  
 acctaggeta tgttcctgct attcaaggag ctgaagaaat tgacagtctt gtagattctg 300  
 atttccgaat ggtgctgcgg aaactttcaa agaaagatgt caccacaaaa ttaaaagcta 360  
 tgcaggaatt tggaaccatg tgtacagaga gagacacaga aactgtgaaa ggagttcttt 420  
 catattgg 428

<210> 685  
 <211> 339  
 <212> DNA  
 <213> Homo sapiens

<400> 685  
 agttcgtggt tgtgtggcgt ggctgccttc catcagcaag tttgagtgt gatgtgagggc 60  
 caccctcttt tgaaatggat tgtggtcggt ttggaatagt tacacagtgc tgtgccattt 120  
 ggtaactcca cacatgtacc gaaaggtgag cccacagtgg aacgctctc aaccaaagtg 180  
 gtttaaagtt gcagaaaagg gtaattgtgc tggttggtgt gtgtgctgaa tttgtagcga 240  
 catcagagtc aagcattatt tgcctgctg ctttcttgga ggtcacagta actataaaac 300  
 cgtgagccag caaggcagag aggacccttt ggggtaagg 339

<210> 686  
 <211> 440  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(440)  
 <223> n = A,T,C or G

<400> 686  
gctccgcccg ggatgggatg tggcgccctt ttccgctcgc cctcgcgcc cccccgcccc 60  
gcgcagctaa attccggcgg aggggcgagc tggcaggccg gtcctctcca ctctgggcag 120  
cggggtcccg cgtccctcc cccactatct ggcagcgtct gggggtcttg ggcagcttcg 180  
ttcattcacc cgggggagtt ggggttccgg gaagggtcgg aagctcctcc ctgcgttctt 240  
ggtgggtaat ggggtgggtg cttttgactc cgggggtgga aaagcgaccc cacattcaag 300  
gacgccaatg gcatgttgag ctttcccaat ctaaaccagg tgcgtggagg gaagcaagtg 360  
cttactccca gcttgaaccc tgagcagcgg tctctaactt tagtgtcctg tggccanacc 420  
tggaagnngg taagaacctt 440

<210> 687  
<211> 423  
<212> DNA  
<213> Homo sapiens

<400> 687  
gggtaggaca aggaaggagg gggtagtctt agcagccagt tggggaaagg atgcttgacag 60  
agtgtcagtg taacttggat tccactcat ctcttctctc tcccaaggat cctgaatcaa 120  
cgtagtgtga agggacaaga gtgagcacct attgatcacc tatgataggt cagacactgt 180  
ccaaggctcc ttctctacac tggctcattt aatctttaca tctcactata gaatagatgt 240  
accagggtgt ttccacatca acgaccacca cgcgccccat ccacccacc cagatgtgtc 300  
tacaccctca gatttcactt gaaatgttcc atccttagtg cagccttccc cagccctca 360  
gaccagggtta gatctccctg tccatgttcc ttatgtcccc tatgctttcc ctccatggac 420  
tta 423

<210> 688  
<211> 408  
<212> DNA  
<213> Homo sapiens

<400> 688  
attgtgtttg catgttatat tacttgatac tctaagcata ttacaaagtt ttcccacatg 60  
taaaccgccg aaaggtagtg ttcattagat ttttgtggca gaaattttaa tgaagtgtta 120  
cgtactggag aggtttcata agtatatact tattttatta ttggcactact ctattgaaag 180  
gggttttgct gtagctgtta gaaacaacta tatttgacat aagaatatgt atgtatttta 240  
agacataagg ttaatagggc tgacaaatat gagaaccagc tgattgggtta gagtctgtgg 300  
aaaacttata acttgggatg tttctggttg tctagttgta tttcttggag gagaagccgt 360  
gtgatgtaaa tgccgttggt taacaccact ttgagaccag agctgggt 408

<210> 689  
<211> 407  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(407)  
<223> n = A,T,C or G

<400> 689  
gagcaagaga gaagacagtg ggtgaagtcc tggttccaga ctcccccttt tgccgggata 60  
tgatggatct gtcagctggg gcctagagtc ctacagagct agagatggag ggaaattcag 120  
atcatctaaa ccttcagcc cttcactgga cagaagagga aactgaggct ccatctgcat 180  
gacgttccca gagtcacggc acaaattcat ggaaaaagca acaggaaact cagttctcca 240  
cactgggtcc aatgtgtgtt ttaaaaatat ctccacaggg ttaatgactc aatttttcat 300  
gcatgattgc tagtaatgac aatcatgtta tgtttgtttc tgtacttttg aaatcactcc 360



ttcacttgag ttccaggtcc caactgncca cacctgcagg aatgagg

407

<210> 690

<211> 410

<212> DNA

<213> Homo sapiens

<400> 690

gcttctcatc	ctcatggtct	agtgtggctg	caccggctct	ggccctcata	cctccccgga	60
ggaagccttc	ttctaggtga	agaagagcaa	atccccacct	ttcaaggacc	ctcactgcaa	120
gttgteccctg	tgactccggt	tgtgtcccat	tgagtacgac	gcttccctgc	acaggatgct	180
aggacacggt	gtctttatct	cgcacacagc	tgaaatttct	tactgagaag	aggaaagtgt	240
ctgttgaaca	aaaactagca	acctcagcca	gtcagtgcac	gaggggcagg	gtaagaagag	300
atgaagatgg	aggggcagcc	cgaggccggc	tcccagagcg	ccgcgtgacc	agagcggacc	360
ctggagtacc	gtcagtgcag	gaggacgtgc	ataggagaga	tcagagcaga		410

<210> 691

<211> 407

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(407)

<223> n = A,T,C or G

<400> 691

gcaacagcca	caggcagact	gaggtggcaa	taggaaatct	gccgagatgt	tcagtcaggt	60
gcccaggacc	ccagcctcag	gctgctacta	cctaaattcc	atgacacctg	agggccagga	120
gatgtacttg	cgatttgatc	agactacaag	acgctctcct	tacaggatga	gccggattct	180
agcagcccat	cagctagtga	ctaaaattca	acaaggtgag	tggccggcag	tggaaggctg	240
ttgctcattc	tgattactgt	tggtctctatt	tcatgctaac	ccagtttttt	ttgtttgttt	300
gtttccactt	tataacatat	ggatttttat	gccacactac	ccgtagcttt	gaaaaataac	360
tttangctgn	agttttcagc	aaacaggaca	gtccttanct	gccacat		407

<210> 692

<211> 408

<212> DNA

<213> Homo sapiens

<400> 692

attcaccatt	atgagaaatg	cttccagtca	caaaaatgca	gccagctca	ctctgaggaa	60
gaagcaggac	ttggtacggg	tttacacaac	tccttaccat	taaactgaat	cagaaatcca	120
ttttctggct	gaataaaaag	tttggcttgc	ctgtgtaatg	cccactccct	ttcccctggc	180
tccttagtga	tgggacatat	atgagagaga	agtgtttttc	tatcatagac	accacagggg	240
aaagtttggt	gatgaaggag	agcttaaagg	tgtttcaatt	aagtttagaaa	actgacacag	300
gctgttgaga	attcttttgc	cttttcccac	cccaaaacag	catggggcct	gacatcttct	360
gccctgggtc	cctttctctt	gatgtggaaa	gtctgaatgc	agtattta		408

<210> 693

<211> 424

<212> DNA

<213> Homo sapiens

<400> 693

aaaacgccgc	tttgactgtg	ccttgttctc	acagctggcg	ggaagcaagc	gccttttcga	60
------------	------------	------------	------------	------------	------------	----

aagccagagg	ctcgagttac	ccctcttacc	accgtcatgg	cagtcccagg	ttgcaacaag	120
gacagtgtca	gagcaggctg	taaaaaatgt	ggctaccctg	gtcacctgac	ttttgaatgc	180
cgcaattttc	tccgagtaga	ccctaaaagg	gacatagttt	tggatgtcag	cagtacaagt	240
agtaaagata	gcgatgaaga	gaatgaagaa	ctgaataaat	tgcaggcatt	acaggaaaaa	300
agaataaatg	aagaagagga	aaagaagaaa	gaaaaaagca	aagaaaaaaa	tcaaattgaa	360
aaaaaaaagg	aaaaggtctt	actcatccag	ttccactgaa	gaggacactt	caaaacaaaa	420
gaac						424

<210> 694

<211> 386

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(386)

<223> n = A,T,C or G

<400> 694

ctccctacca	gatgcaggaa	ctcctggact	ccttggtggg	ctggccctgg	ctagcccttg	60
ggcctcggag	atgatcagag	gtgaagaacc	gcctggaaga	ggaaggccag	ggtttgcca	120
ggagaactaa	gaaggtctca	actccaggct	ttggtgtgtt	taagctattg	agagccccag	180
gccacaccag	gacttgcagt	ggtagggaatc	cattcctctt	ctgccctgtg	ttgcagggaa	240
ctaggaggta	agggngnang	gccancnttt	cnctccttgn	tggcgngnga	ccatncnata	300
cctgcttttn	ttgatggcca	ancagtatna	acngnatcnt	gagcgnnctn	naangngncn	360
tgncaggnac	ntaactcntn	netctc				386

<210> 695

<211> 389

<212> DNA

<213> Homo sapiens

<400> 695

ccaggctgga	gtgcagtggc	acaatctcag	ctcactgcaa	cctctgcctc	ccaggctcaa	60
aggatcctcc	cacctcagct	tcccaagtgg	ctgggactac	cggtgtgtac	caccatgcct	120
ggctagtttt	aaaatttttt	gtagagacaa	gttctcacta	tattacccat	gctggtcttg	180
aactcctggg	ctcaagtgat	cctctaagcc	ttggcctccc	aaagtgctgg	atgtgcaggc	240
atgagccaca	ccactcctgg	ccctggttgt	gttttctaag	ctagactctg	tgcttgccag	300
caaagcttca	tgacttctct	aaaggggcaa	taagtttgcc	tttagagaag	tcaggagagct	360
atattcaggc	atccagccca	accagttgt				389

<210> 696

<211> 387

<212> DNA

<213> Homo sapiens

<400> 696

gagatttcct	actaaccatt	tgcattggga	cagtgaggct	gggggagggg	ttcagtgaga	60
gattactgaa	aaaatgagta	tttatcacta	cagaaagggt	aatttgcttt	tcaccgttta	120
aactttttta	aacatggtct	tttatcagaa	ttggcatttt	gagaagaggg	tgaactgagt	180
taaacaatga	agcaattcta	gagctctgtt	gtccagtgtg	gcagccacca	gcaacatgtg	240
gctattttaat	tttaagctat	ttatggccag	tgcggtggcc	cacgcctgta	atcccagcac	300
tttgggaggc	tgaggcaggc	aggtcacctg	acttctctga	ggtcaggatt	tccagaccag	360
cttggccaac	atggcaaaac	cccatct				387

<210> 697

<211> 402  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(402)  
 <223> n = A,T,C or G

<400> 697  
 aagaataagc tgggcacggt ggctcacacc tgtaattcca gcattttggg aggccaaggt 60  
 aggcggatca cctgaggtcg ggagttcaag accagcctga ccaacagggg gaaacctcgt 120  
 ctctactgaa aatagaaaac agttagccgg gcgtgggtggc acatgcctgt agttccagct 180  
 gcttgggagg ctgaggcagg agaatcactt gaaccacga ggcggagggt gcggtgagct 240  
 gagatcacgc cattgcgctc cagcctgggt aacaggagtg aaactccgtc taaaaannaa 300  
 aaaaaaaaaa gnattnnntn ncnnnnaaaa aaaaaaaaaa aaaanncgng naaaaaaaaa 360  
 aaannaaaaa aaantgggaa anaaaatttt aagggccggc cc 402

<210> 698  
 <211> 389  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(389)  
 <223> n = A,T,C or G

<400> 698  
 gcctggagct aagtgccgag agcgaggccg agatggccga gtggatgcag catctctgcc 60  
 aggcgtgtgtc caaaggggna nnngtgnaag gtttnactnc canccctgc atacnntgct 120  
 gcctgggtcct cacggatgac cgcntnttta catgccatga ggattgccag accagcttct 180  
 tccgctcttt gggcacagcc aagctgggag acatcaagcg ccgtctccac cganccgggc 240  
 aaggagtact gcgtcttgga gttcttccag gacagccagc agctcctccc gccctgtgtc 300  
 atctatctga gctgacttnt gaactggacc gattgctgct gcaactgaact ctgggtggaa 360  
 aaccatttat nangtggacc tccccacac 389

<210> 699  
 <211> 391  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(391)  
 <223> n = A,T,C or G

<400> 699  
 ggggaaccaa cggaagccga agccagagct agagcatcta atgaagatgg tgacattaaa 60  
 cgtattttcta ctaaggaatg ggctaaatca actggatatg atccagctaa actttttacc 120  
 aagggttagat ttactttttt ttataatcat ggatagatgt attgttgtgc atagatgtat 180  
 tgctctagtt ctgcttggtt taaaatagcc cataaaattg aattaagctt ctatgtatat 240  
 gccttgatgt gtccctaataa aatgattgat gccgtccgga tatgcaagtt ttaaaatggt 300  
 accatctaca ctaagtctat cagtatagca tctaaatagg aggtaaaang agaggtggct 360  
 tgtatacctt nttggngggc ttttcttctc t 391

<210> 700  
 <211> 405  
 <212> DNA  
 <213> Homo sapiens

<400> 700  
 gattgtggga gaggtgggtg ctgtgagga gtctgctgtg actggactgt aacaggattt 60  
 acttgagaat ttgaggtgtg ttgggggcag ggtcaggagc aaaggcttgt tccccctact 120  
 cagcggctgc tgctgcaggg cggggcaaca gtggagggtca tgcaggaagg gtgttcgctg 180  
 aagaccgtgt tctgtgactt gaagatgggt gtccctcccg tgggggtgga atggagactg 240  
 gacgccgtgt ggcttgagag tggcatcctg cgtgaccttg cgtgtagtgg gcttacagca 300  
 gagctagtcc ttccctctata gattcttttc atagtttgcc tgcctttaga ttctctgatt 360  
 aacgcatctg aggtgggtcc caggagtctg ccacctgcca gccag 405

<210> 701  
 <211> 408  
 <212> DNA  
 <213> Homo sapiens

<400> 701  
 aagaaaaggc ttaatgggta ggatttttaa gtattcccaa agatctgaag ggtaataaaa 60  
 tgtactggat tttttaagggt ggtacccaaa atgaatgtct gtcatatatt tatattacaa 120  
 atacattata tttatgttct attcatcttt tgaatgttta gtatgctatt aagtcattct 180  
 gaatctttgt atttgctttt gcaaataagg atttcaaagc tcttttccta actggttaag 240  
 taaaataaaa aattgagctt tctagaatat ttgcctaatt gggaattaaa aagtaaaata 300  
 ataggccagg catggtggct catgcctata agcaccctgg gaggccgagg caggcagatt 360  
 atttgagctc aggagtttga gaccatcctg gcacatggcg aaacccta 408

<210> 702  
 <211> 383  
 <212> DNA  
 <213> Homo sapiens

<400> 702  
 gcccctgtgg agggcagccc cgacaggaag cagtcccgct ccagtctgag catagccctg 60  
 agcagtgggc tggagaagct caaacagtc acatctggga gcattcagcc tgtgaccag 120  
 gccccccagg ctggccagat ggtggacacc aaaaggctga aggactcagc tgtgctggac 180  
 cagtcggcca agtactacca cctgaccac gatgagctca tcagcctgct cctgcagcgg 240  
 gagcgggagc tgagccagcg ggacgagcat gtgcaggagc tggagagcta catcgaccgg 300  
 ctgctgggtg ggatcatgga gacctaccc acgctgctgc agatcccccg ggcccccca 360  
 aatagccttc tcaccctacc cca 383

<210> 703  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

<400> 703  
 gcctttctcc ttagaggcca gaggtgctgc cctggctggg agtgaagctc caggcactac 60  
 cagctttcct gattttcccg tttgggtccgt gtgaagagct accacgagcc ccagcctcac 120  
 agtgtccact caagggcagc ttgggtcctct tgtcctgcag aggcaggctg gtgtgaccct 180  
 gggaacttga cccgggaaca acaggtgggtc cagagtgagt gtggcctggc ccctcaacct 240  
 agtgtccgtc ctccctctctc ctggagccag tcttgagttt aaaggcatta gtgttagata 300  
 cagctccttg tggctggaaa acaccctct gctgataaag ctgagggggc actgaggaag 360  
 cagaggcccc ttgggggtgcc ctctgaaga gag 393

<210> 704  
 <211> 367  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(367)  
 <223> n = A,T,C or G

<400> 704  
 gccaaaggact gaggtttctc tggacttggt agagcgacat gtgcagcacc tgggcaggcg 60  
 tgagggggtgg acttactttg tggaaacacat gggagcatga aagcagcacc tgttcatgag 120  
 gaaacagaac gacgttgaag ttacaaaaag agaagcagca tgtatccaac agttaaatac 180  
 ctgaatgctt agaagggaaa gtgtgctcac aagaaaactt cacctttctg tgacccaaat 240  
 tccccactaa acagtgatat actgggctgt gacaaaagac tgaagcttag accaaatgaa 300  
 gaagaaggca gtgggtactt aatagaaggg acaggccgcc agcccaccag cgccagggcc 360  
 tgngggc 367

<210> 705  
 <211> 377  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(377)  
 <223> n = A,T,C or G

<400> 705  
 aactggagca aggtggtgag ttcaggctca gacatgaacc tgggaaggcc cacagcctgg 60  
 atgcacacat ggcctggggc tggatgagtg tggacctgag ctgaagtggg gcctggcagt 120  
 caccattgag gatgaatttg cccaagctag ctgggcagag tgacagcaaa gggtaaaggc 180  
 agaaccctca cccatggaa acatccagag cattcactca ctcaccattc attcattcat 240  
 tctctactc cacaatatcca cggtagagcc cttctgcgct ccaggtagtg ttctctgtgc 300  
 aggggcatta gtggttaaggg cctgtctcct ggagctcacg gtctatggca gaaactgcag 360  
 tgaccaccng acatcat 377

<210> 706  
 <211> 407  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(407)  
 <223> n = A,T,C or G

<400> 706  
 taggatcctg gtgggagggt ggacttgggt tcaaagaaga ccaagcaggc agacgtgttc 60  
 gggggccgc ggggtccgag actggagact ggacctttg ctgtcccccac gtgcattcta 120  
 ggtcaacggt gcggtggcag aaccctgggg ctctcccccg cggaactcgg ccctggccga 180  
 ggccccaac acgctagtag gaggaggccg agcatccctc ctcgaaatcg cgaaatcccg 240  
 gccgacaat gtagccacgg agtcgaaagc cgcgtgcgaa cttggcactc acaaagccta 300  
 gataaccgtc tattttctcc tgtaaaatan gagggatgga ccccccacaga tcattgtaaa 360  
 aggtcttaca aagaaaaatc cttctggact ggcacgggtg ctcacgc 407

<210> 707  
 <211> 392  
 <212> DNA  
 <213> Homo sapiens

<400> 707  
 gtatttggaa aattgggttca agctgggtat gagacataag tgtagtcagc tctgggagaa 60  
 gggttgcctt aaggagaagc agggacctgt ggtttagcag caggaagtgc aaatgggact 120  
 ggcttgtgct ctacctggca gacctggatt ggcttcaggc agccagtgcc tggaaaagcc 180  
 tggagaattg ggccgtactt gacctgatt ctcatcaggc acagatgaat cacaggcacc 240  
 taagaatcgg cacagaactt ccatgaggcc tcagtcagca ttttttcaca aaatgagctg 300  
 aggccattca aggaggctag aaagagggaa ctgaatccag agaggaagag tctatagtca 360  
 tcaagttgta tccatgccag cctccctcca ca 392

<210> 708  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(401)  
 <223> n = A,T,C or G

<400> 708  
 gggagccaag gcctgccagg gagaggctct tggagtggcc cgaccgggaa ctggatcggg 60  
 tcaacagctt cctgagcagc cgtctgcagg agatcaaaaa cactgtcaaa gactccatcc 120  
 gtgccagctt cagtgtgtgt gagctcagca tggacagcaa tggcttctct aaggaggggg 180  
 ctgctgagcc tgagcctcag agtctacccc cctcaaacct cagtggctcc tcagagcagc 240  
 agcctgacat caaccttgac ctgtccctt tgactttggg cccccctcag aaccacacgt 300  
 tacaagctcc aggcgagcca gccccaccat gggcagaaat gagaggccn nccccnccat 360  
 ngnccgaggt gagggggccc ctccggtatc gccccgagaa c 401

<210> 709  
 <211> 382  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(382)  
 <223> n = A,T,C or G

<400> 709  
 attctgtgga caccgagtc agcctccggg aggacgtga gggaaacctt tgggacagcc 60  
 agggcagaga acgcctttta cttcttaagg ctctggatca aaacagagaa gcttctgttt 120  
 tggagcctgg caatcctcga acatcagtgt gcattttaag ccataaagcg caatactgat 180  
 taaaaacagg aatacggagg gcttccttta aactgcttca agaaaacaaa ctccctcgggg 240  
 acttccgaaa ggagctctca ccatagctcc tgcaatccac tctgaacagg aaaccttctc 300  
 atctatttat taaaactgac cccagaaaga ttttcaacag ggaagcctgg ctttatgttg 360  
 nggtatagcc ncaanagaaa ga 382

<210> 710  
 <211> 408  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(408)  
 <223> n = A,T,C or G

<400> 710  
 gccccccagc ccgagcgggg aggcgagcat gagccccga gccggccctg tggcctcctg 60  
 gatgaggatg ggagtgagcc cctccctggg ccagagggg aggtccctgg aggcagcgt 120  
 cactatgggg ggccctcccc tgagaagaag gcaaaaagt cctctggggg cagctccctt 180  
 gccaaaggcc gggttagcaa gaaacagcag ctccctagcca cagcggccca caaggattct 240  
 cagagcatcg cccgcttctt ctgccgaagg gtggaaagcc cagctctgct ggcacagcc 300  
 ccagaggcag aagggtgcctg ccctcctgtg agggggttca gggacccccg atggcccan 360  
 agaagtacac aggggaggaa gatggaccg ggggacattc cctgccct 408

<210> 711  
 <211> 357  
 <212> DNA  
 <213> Homo sapiens

<400> 711  
 ggggtgtttt ctggagatca gtcaacagtt ctctgaagca gtgtcgatgg gcctatccac 60  
 gtcaggctct catttctgat attgctttaa atagaaatga aattctattt gttacgcaag 120  
 atggagaagg atttagaggg agatggtttg aagagaaaag aaagagttct gaaaagaaag 180  
 agattttatc aaaccttcac aattcctcat cagatgtgtc ttatgtctct gatataaata 240  
 gtgtgtatga aagaattcga cttgagaaac ttacctttgc acatagagct gttagtgtca 300  
 gcacagatcc aagtggatgc aactttgcaa tcctgcagtc agatcctaaa acaagcc 357

<210> 712  
 <211> 353  
 <212> DNA  
 <213> Homo sapiens

<400> 712  
 aacatgttga aatgtcacat tagtagtaaa gtgggggttta tttatatagt ggtaagaaa 60  
 tgtcagttta cactgtctgta tacttcttct tctgtgtccc taaggcctgg tacagtgcc 120  
 agcacatact tggatatcaa taaatatttg ttggatgaat gtatgcata gtattcagta 180  
 tatttttaaat gaataatcac agaagtaagt ttaatatattg tcctatattt ctctgtcact 240  
 tcctttttct ctaaggcagg aaaggaaaga cattaaacca ttaattaagt caatcctctt 300  
 ggagactcaa aagactatga agtgatcact ctatataaaa tataaatata gtg 353

<210> 713  
 <211> 355  
 <212> DNA  
 <213> Homo sapiens

<400> 713  
 gcatggatcat ttgtttggga ggtaaatgata ggagcagaaa tgaaaaatct ttgagaagat 60  
 tgtgaaattg gaaagtgttg agttctagaa cagaataaat tctagagtta gaggaggtgc 120  
 tttttcatga atgggtgtac cgtgtgttga gagagtggag tgagaaatgt acttctttga 180  
 tctgtttcac atagaagcat gtatcatata gaaattcagt ggtggccggg tacggcggct 240  
 cacgcctgta atccagcac tttgggaggc cgagggtgggt ggaacacttg aggtcaggag 300  
 ctcaagacca gcctggccaa catggtgaaa ccctcctct actaaaaaat taact 355

<210> 714  
 <211> 385  
 <212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1) ... (385)

<223> n = A,T,C or G

<400> 714

aggtcttttg	ccttcctctc	taaattgtga	tttcctacag	agtaaggctt	cttatctttt	60
tacctagcat	tattggtgct	catcaatatt	aagtgcatta	agtgcattga	actcatgcat	120
tcatgagact	aagttttagt	taagtgttaa	ttgcagaaaa	athtagtata	gtaaaatgaa	180
agtttattct	gttctgtggg	acactctgag	ccaccagggg	catagattat	tttaagttgt	240
ctgtgccttt	gctgataggg	aactttgatg	agcaaagagg	aacctggtag	tggtagagga	300
ttgtgaactg	gcctgtgntc	antcatcatt	gganatttan	aattgacngc	tcnngggtgg	360
ntcccattta	naanacttnt	gattt				385

<210> 715

<211> 348

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1) ... (348)

<223> n = A,T,C or G

<400> 715

aaaaaatatt	gtttccttaa	tggaattctc	acttcatttg	aatataagat	tttggatgaa	60
aggattttgg	ataaagtttg	ggtttttgtc	tcaaggattt	gatccatatt	tatccctaaa	120
tatttcttaa	gggatgtaac	tttttataac	cattaagtgg	ggggaagggg	gnngnnggn	180
tgncctnnn	tataactgna	agggnantnt	ctcctatgaa	aancctnctt	ccccnacttt	240
actntgnntt	tactngngan	nccctanana	ttntngaate	naantttngc	ccccnnanna	300
anatanattn	nnntnnncnt	ngnngnccaa	nncannaatt	ntngttaa		348

<210> 716

<211> 383

<212> DNA

<213> Homo sapiens

<400> 716

gcaggcctca	tgggaggatt	tgatgaagat	gttaaagcga	aagtggagaa	ccttctcggg	60
atttccagcc	tggaaaaaac	ggacctgtt	aggcaagcac	cctgcagccc	tccctgtccc	120
cttcttcccc	tccccttccc	ccgcccgttg	agacagctgt	tctcagcagg	gctctccgca	180
gggagggggc	cggctccttc	cctggcagca	acatccttgc	ccttgtcaca	caagtcagcc	240
tccatctgcy	cagctctgtg	gatgcgctgc	tggagggcaa	caggtatgtc	actggctggt	300
tcagccccta	ccaccgccag	cgggaagctca	tccaccgggt	catggttcag	cacatccagc	360
ccgcagcgct	cagcctcctg	gca				383

<210> 717

<211> 348

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1) ... (348)



<223> n = A,T,C or G

<400> 717

gtagaaggct	cagtttctct	gctcatcaca	cggccttcgg	cactgtagct	ttgggtggtg	60
ggctgcagat	taattttgta	accaccttaa	gaaaaatacg	gtaaggatgat	atttaagaaa	120
aatatttgcg	aaatgcgctc	ccgagtcaaa	catcggttga	cttgacacta	ctacagtttc	180
catcacagtc	aggcatgata	gattcaggtg	gagggagttg	aagattgttc	ttgatgaact	240
gaatgcagct	aatacatatt	cagtgcggtt	gatgcctcta	tgactccgta	aaataatcgg	300
aactctaact	ccttgccact	caagaaatgn	cctccctttc	agaatatg		348

<210> 718

<211> 379

<212> DNA

<213> Homo sapiens

<400> 718

gtctggatca	tattttcaac	acagggcaca	tgagacagtt	gaccatgata	atcaaagacc	60
agctgtgatg	agagaaaagg	tttctgcctt	ggggcctgta	aaaaaaagg	tcaggaaagg	120
tcgaggggct	agatgtcagt	atacattcct	cagcatctgg	ccctggactg	cctgccacct	180
ccacacatgc	cacccaccac	ctcacttgaa	ggatgttggc	cacaaaagag	gttatctgct	240
cttccaagac	agaaatgagg	ctctgacaaa	tcagttagtc	aaccaggcgg	gcaaactttc	300
ccagctgcag	ccaccaggcc	tctgcttgct	tcagcttctg	ctccagttgc	ttgtgctgta	360
ccctctgaag	gtatatgga					379

<210> 719

<211> 386

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(386)

<223> n = A,T,C or G

<400> 719

ggctctgcctt	gcctagttga	gcctgtgcac	tctgtctctg	cctcccttca	gatagggaaa	60
ggagcttcaa	attacggggg	gatgtcatag	cacggagtgg	agatgggggtg	gcaggagagac	120
agggagggctc	aggggtctctg	gcacacattc	ctcccagagc	aactgttagga	agcaagccag	180
tacagaggta	ctctaagcgc	tagacaggac	gggggtgagt	tcgtaacatc	gtctcctctg	240
ggctggccct	gcttctgctt	agctctgggc	ataagactga	ctccagtaca	gtcacaatta	300
tgtctctgag	ctcaccagct	cctgggttca	ggttccanc	tctgacctgg	cgagacacac	360
acangctggt	gctgnnggat	gcttgg				386

<210> 720

<211> 344

<212> DNA

<213> Homo sapiens

<400> 720

gcgggggtacc	agcagagtgg	atgacaagcc	cagctcaccg	ggggacagct	cgaagaagcg	60
aggccccaag	ccccggaagg	agctcccga	cccctcacag	aggcccttag	gcgaaccag	120
cgccggcctc	ggagagtacc	tcaagggcag	gaagctggag	gacaccctt	ccggggcagg	180
aaagtttcca	gccggccaca	gtgtgatcca	gctggcccga	agacaggact	cggacctggt	240
gcagtgtggt	gtgaccagcc	ctagctcagc	tgaggccacg	ggcaaactgg	ctgtggacac	300
cttcccggcc	agggtgataa	agcacagggc	tgcttcctgg	aggc		344

<210> 721  
 <211> 355  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(355)  
 <223> n = A,T,C or G

<400> 721  
 cagaaattcc tgttctccct gagccagcat atcaactggg tccgctgtgc caagttctcc 60  
 cccgacgggc ggctcatcgt gtctgccagt gatgacaaga ctgttaagct gtgggacaag 120  
 agcagccggg aatgtgtcca ctctgtattgt gagcatggcg gctttgtcac ctatgtggac 180  
 ttccacccca gtgggacgtg cattgccgct gccggcatgg acaacacagt gaaggtgtgg 240  
 gacgtgcgga ctcaccggct gctgcagcat tatcagttgc acagtgcagc agtgaacggg 300  
 ctctctttca ccgctcgga aactacctga tcacagcctt cagtgactna accct 355

<210> 722  
 <211> 339  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(339)  
 <223> n = A,T,C or G

<400> 722  
 ggtgcccata acgggggtggg cctgccgctg actcgggtct ccgccatgca cgcgtggact 60  
 ctcgatgag ctcagcagaa ccgcacagcc agagccccag gtcagaagtg cagaccaggg 120  
 ttctcagcac agtgcccgtc gtgcttccat ggcttgctac ggagagagac ctctggatcc 180  
 aactggggc tgcgtctggc ccgttgtcca gcaaccctgc ggtaccgcaa gcccatgcac 240  
 canngtctcg ggggganttn ctgatgngct angagnannc ccncganntt tgtnnangct 300  
 aatnnnnnca ngcanntntn ancttttctc natnnngcgc 339

<210> 723  
 <211> 308  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(308)  
 <223> n = A,T,C or G

<400> 723  
 aaggagcggg gccagactgc tgggaacccg ttctttgagc gttttggcat tgtggtggca 60  
 gccactggca tggcagtggc cctctttctca tcagtgttg cgtctggcat cactcgccca 120  
 gtgccaacca acacttgtgt catcttgggc ttggctggag gtgttatcat ttatatcatg 180  
 aagcactcgt tgagcgtggg ggaggtgtgg gaggttttnn nnnnncttnt nannttnnnn 240  
 atntnaacat gannctgntg nncctgctgn ccgctgntt naccctggg gangcactgn 300  
 tgnnattg 308

<210> 724  
 <211> 259

<212> DNA  
<213> Homo sapiens

<400> 724  
aagatggaga aaagtagaat aaaaaagacc atcttttgtc accatcgttt cataaaagca 60  
ttttaactcc ctaaaatata agtgggacta tctcaaagaa cactgaacaa tccattaaat 120  
tgaattctga tgggttaacag atgaaaaact cacactgtcc ttgttttgtt catccgttca 180  
gcttagacct gtgaaaattc tattgcccac cattgaggtc cagtttttgg gaaaaagtaa 240  
tgtataaaaa aaaaaaaaaa 259

<210> 725  
<211> 450  
<212> DNA  
<213> Homo sapiens

<400> 725  
gaaaaagttc tcctcttatt tggggaatgg atttcagaag agaccagaag atgttctcgt 60  
gttctcacca cagggaaggc agaagcacag agccccacag gctaagaaaa tgagagcatt 120  
ggcaaccctg atggcccaag acacatgcaa aagcaagtcc cagggtgcctc cttcacatga 180  
tgctggcctc aaagacccca tgaagagcaa aaagcagcca ctctctcaa ataacagaac 240  
tgctgtcttc ataaaagagc aaccacaagc ccaagagaaa gattctgtga atccatctaa 300  
ggacgtagac ccagcaagg gcctctctgt tccatgcaa aatcaagagg tttccaccaa 360  
caccatagaa caaggctcta gttccagccc agctagtgat agtggaatgg catgtgctga 420  
tgagaccaga tcaaaagatg ttgttttaag 450

<210> 726  
<211> 418  
<212> DNA  
<213> Homo sapiens

<400> 726  
aggcaattct gctatgtttg ttcttcacta tgatttactg tgtgccaaag gagttttgac 60  
agggtacaga gtattttact aaaagtattt ttaaagtgtt ctcatgtgat ttctgtacct 120  
tcttcctcct gccccttttg ctttttttaa gaaactgggg aaggatttat gaatacacca 180  
ccaccagagt ggataatgct tagaattcct tattggtggc cctactatgg tgatgatcta 240  
gaactgactt acttcaggac agaagaaaaa acaatcacac ccttaacctt taagccagtt 300  
agatcagggg gttgcaacaa ttgggtttaa ctttgggtat acattggaag caccagggca 360  
tgtttgcttt ttttggttat gtgtttgttt tttgagacgg agtctcacac tgtggcca 418

<210> 727  
<211> 415  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(415)  
<223> n = A,T,C or G

<400> 727  
gtggaggctg ccaagcctgg attccagccg gctccaaacg ccaggctgag gaggctttgg 60  
actttgtcca gtgtcaccac aggcttctgg gcagagctgg tccaatgggg gttgggggac 120  
agtggcatac ctgacatcaa cccctgggtt attgacatca gccctgggaa tgcattagtg 180  
atgcattcca cgggcccagg ggtcatccac tgccttcggg tcaagcaaat ggccagtagc 240  
tgcccaggct gatagaggtg tgtgttgagg gggggcacag gccactggcc ctgcggcctg 300  
gcctggcagc agggaggcct cagatcttag atgcctgaga gctaccccaa gaagggtctc 360

ggcacagcta tgggtcccat gcctagtgn gctgggcctt ctnggtgctg cagat 415

<210> 728

<211> 408

<212> DNA

<213> Homo sapiens

<400> 728

atTTTTggtc attattgtct aaacaataca gcttaacaac tgTTTTcata gtatttccat	60
tatattaggt attataagtc tagagatgac ttaaagtata tgagaggctg tccatagggt	120
attatgcaaa cactacgcca ttttctatca gggatttgaa catttgcaga ttttggtatc	180
cataggatgt cctggaacca gtccccact ggtactgagg gacagctata cttaaagact	240
aatatatatg ctctgttttc ctttagagta cttgactcta cacatttcct atagctttga	300
agacttgtct tccttgaagc agactaaaag ggggacagat gggaggatgg gaagaaccac	360
acttccataa tcttagaatt attccttcct tgctatgctg acaaaggg	408

<210> 729

<211> 407

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1) ... (407)

<223> n = A,T,C or G

<400> 729

caaatacag cattaataac agtgccctaa ttatgagctg caataattgc tttccagagt	60
tagacttcaa atcactgagt agctgactta ttaaagttt ttattgttct gaaatgtaaa	120
ctaatacagt tacttgtaga ttgctgatga agtggttaata ttgagatgct ttaattgggc	180
ctcctggcat tctttgaatg aaatgatttg tggtcaaaa atgctgcggc agcaganacc	240
ataaanagca ctmnancata gatggccttc naganaaacn naatatccat ngngncaan	300
taacgannac cccatagant gcannncgga gaaanacccc ngngaattgnt nnnaaacngg	360
gaaacancct ccccnannga nanccttccc caccgcanng ngcgac	407

<210> 730

<211> 406

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1) ... (406)

<223> n = A,T,C or G

<400> 730

tatacacata aagtttaata gttaatgtta ccagattccc tggtaagatc ttaaaatgag	60
cttccttggt ttctcaacaa cattgctact aaaaacgaag tgtggaatat actcttcaga	120
tagcagcaaa tgTTTTgtca tttcctttgc ttctgttgat tttcaaaagt ttacctcctt	180
aaaatacata aactattgtg ttgtagaaga ttccacatga tgaaggatcat taattttctt	240
gtgccactgg tgccagtga tcagaccaac ctaacatgcc tcagtttcat gcatattctc	300
acttgTTTTc cttctgaata aaagttattc taaatctttc tcttgacttc tttgtttagg	360
ggagtgggtc gaacctgctg tgcttctacc tacttgatag gngagg	406

<210> 731

<211> 407

<212> DNA  
<213> Homo sapiens

<400> 731  
aaccatagg aaatatgac ctgaggcacc gaggatgggt ataggacgtg gtctgctgct 60  
gcatgttgca ttactgtatg ctgggttttt ggtactcttt ctcaaggctc tgttattagt 120  
tggtaggctc cagtaatgaa tatagaggac tgacagagtg ggattaactt atttgcaatt 180  
gtttcctact gaaatcaaat gcacgggttt cccaatttaa gacttgggtcc cttgtacctt 240  
gatttgattc agaaagccat ctgtgatgtt tttgtttcct ggcgctgca ggaaaactca 300  
tttgtcatga gttacaatta ctttcagtc attgctatgt ggtttagca cactcattgc 360  
taaaaatggt tatgagtga ccttaatcca tgagctcaac tgggtgc 407

<210> 732  
<211> 401  
<212> DNA  
<213> Homo sapiens

<400> 732  
aaccatagg aaatatgac ctgaggcacc gaggatgggt ataggacgtg gtctgctgct 60  
gcatgttgca ttactgtatg ctgggttttt ggtactcttt ctcaaggctc tgttattagt 120  
tggtaggctc cagtaatgaa tatagaggac tgacagagtg ggattaactt atttgcaatt 180  
gtttcctact gaaatcaaat gcacgggttt cccaatttaa gacttgggtcc cttgtacctt 240  
gatttgattc agaaagccat ctgtgatgtt tttgtttcct ggcgctgca ggaaaactca 300  
tttgtcatga gttacaatta ctttcagtc attgctatgt ggtttagca cactcattgc 360  
taagaatggt tatgagtga ccttaatcca tgagctcaac t 401

<210> 733  
<211> 402  
<212> DNA  
<213> Homo sapiens

<400> 733  
gtttttccat gtcgtcattg agtcattcaa gttttatggc tctggatatt tgaaattatt 60  
ttggacaccc aaatttgga tgtttctttc tgaattgtga taacgccaga aaatttttga 120  
gatcagaaaa gggcagttta tttgctttta aataatacag cttttgtagg ggactcgtga 180  
tacttgggca ttatttcctc tccacattaa aaggaaagca gtgggcagga aagatgcata 240  
cagcacataa cctcattaca taatacaatg tttctttgga accagtagga atgagttggt 300  
ctggaaaaca cttttagtag gttttatcac ttttagctct ttaagattta tcacttttag 360  
gccaggcgca gtggctcacg cctgtaatac tggcctttgg ga 402

<210> 734  
<211> 398  
<212> DNA  
<213> Homo sapiens

<400> 734  
aaaacgagtt aaatathtag gaggcttgac agctacctgc attgtagaac cttttcttat 60  
ctcagtggaa cttctataa cctaaatata ccattgatga ttcttcttcc attcagtgc 120  
atccacagat tatgcagcta tacttgtgaa atcgtgcatg agggcccagg gcaccgttct 180  
agaacaacgt cacttcacac aggcagctga gaaagggtct cttgcttttc cagtatcttc 240  
ctaaggatgg agcccaaat tgcagagcag taactttgga ataaaaccag ggtgggtata 300  
aaacttctta ttcttaaatt tacatataag atctattaag cttgacacat ctgtgtcatc 360  
acgcactgaa gacaggaagc agttcactga gtcagctg 398

<210> 735  
<211> 397

<212> DNA  
<213> Homo sapiens

<400> 735  
gataaatatc aattttaatt aatactctaa gaacatacaa aaatggcaag ccctttacca 60  
tcaactgttta ttattgatgg caacaagtca aagctagata tattttatatt gctttgagat 120  
gatttttttgg ttatgatttt atagccagca atgcttggtta tgcattccatc aacaaaaaagt 180  
tgtaaacac ctactgccaa agaaaaatca aaatgtcacc atcaaggcca tcatgggtgta 240  
agaaaacaga cctatactca ggcaacttca gttcagtatg atggatactg tattagaaaa 300  
agtatctggg cgctttgtat gaggaaggac atgtcattgt gtggagaaga tgaagcttca 360  
ctgaggagag agtgccttgg cagtcctaac atttgtt 397

<210> 736  
<211> 388  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1) ... (388)  
<223> n = A,T,C or G

<400> 736  
aaaaaaaaa actcccatga ttaaagttta cctacataac aaacctgcag ttgtaccact 60  
gaacttaaaa taaaagttta aaaataataa taataatttt tttttgtaaa natggggngt 120  
tgntntggng cccaggctgg nctntcaaat tcttgggctc aagcaatcct ccgacctcag 180  
cctccaaaag ngctgggatt acaggcntga gctacctcgc cagcctaaat acattnttga 240  
atatgtanct ttgggaanat ttattanttg attaaggact aggaggtcca gctaaaatgc 300  
aattggattt ataaggggct taaatcccca ttttaaggat gaaatcaaaa atggcgaana 360  
aatcantgaa ctgnggtctt aaaaaatt 388

<210> 737  
<211> 383  
<212> DNA  
<213> Homo sapiens

<400> 737  
ctctttcttt tctttccttt cttcctactt tctctttctt tctccttctt tctttctctt 60  
tccttccttc cttcctttcc ttattctttc cttttttcct tctctttatt ttttctttat 120  
tctctatctt gctctttctt tcctttctct gtctctggct ctttttcttt ttctctcttt 180  
tttcttttct ctctctgtgc cgtctctctt tctctttttt tctccttctt tccatccttc 240  
cttcttctct tccttcctcc tgtccttccc agataaaaaa tattatctgg tcaaactgtc 300  
ccatctgttt gggacaaagg agatccactg agattttgta caagacgtac atttttaaaa 360  
aggaaggggg gtagagggca gga 383

<210> 738  
<211> 384  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1) ... (384)  
<223> n = A,T,C or G

<400> 738

gttttctgaa	ttcagatata	atgctttctt	ctgctttttt	tttgctgtgc	tccaaatctc	60
agaaggcact	gaagccagat	taaaagttaa	atgaacaggt	gacatattaa	agttacaggt	120
ttatgagttt	ccccactcca	ctgttttcat	gtagctccag	aaccttatag	gataatggaa	180
gacagattca	gtccaatgct	gtttttcaga	gtagaatcta	tcattgtttt	aaagttaaaa	240
attntcagng	tacntattaa	atacaagttt	ttcagattta	gaatttgttc	ttntgaaaaa	300
aagagtccctg	aatgtctcct	ggacagaaaa	ccctggttct	gggggtttta	ggatccanaa	360
nacagcatgc	ccanatgggc	ttgg				384

<210> 739

<211> 386

<212> DNA

<213> Homo sapiens

<400> 739

aggaggtgac	cctcagactg	acagtgagtg	agtccgagca	tcagtggctt	ctggagcaga	60
ccagccacgt	ggaagagaag	ccttacagag	atgggtcggc	agagccctgc	tgatggctgg	120
gccttgtggg	cagccactct	gtgtgagcag	ggtgttgggc	ccatacactt	caaagaccag	180
agccctgcac	tgggagagtg	ctcctggccc	aggctgggaa	tcacctttcg	aggcccttca	240
gactctggcg	gggcttgctg	tggcctccct	ccagctagtg	gtgtggctga	gcagactcca	300
gggccagggc	cagttccctt	ctccctcccg	gccaaacca	gaccagact	ctaagaagct	360
ggaatggagg	gcagggatcc	atggga				386

<210> 740

<211> 383

<212> DNA

<213> Homo sapiens

<400> 740

gggactggaa	gcctgccatg	gcggcttctg	cggcggagac	gcgcgtgttt	ctggaggtgc	60
ggggacagct	gcagagcgcg	cttctgatcc	tgggagaacc	gaaagaagga	ggtatgcccc	120
tgaatatttc	cataatgcca	tcttctactcc	agatgaaaac	ccctgaaggc	tgcacagaaa	180
tccagcttcc	agcagaggtc	aggcttgtac	cttctctctg	ccgtgggcta	cagtttgttg	240
ttggagatgg	actgcacctg	cgactgcaga	cgcaagcaaa	attaggcaca	aaactgattt	300
caatgtttta	tcaaagctcg	caaaccctaa	aatgttgac	gttttattgc	caatcctgcg	360
gtgaagtcac	aataaaagac	aga				383

<210> 741

<211> 408

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1) ... (408)

<223> n = A,T,C or G

<400> 741

cagggctgca	caggagcaag	agtggaggcc	ctgggtcagg	cagatctaga	ttcaaactcc	60
cgagaagggg	ggagggaagt	gtcceaagca	gagcagagac	tgaaggcggg	agagcctggg	120
gcaccgcgga	cctgcagggg	gaaggcgtga	gagctcgggtg	cactggggac	ctgcatgggg	180
aaggcgggag	agctcgggtg	actggggacc	tgcattggga	aggcgtgaga	gctcgggtgca	240
ctggggaccc	gcattgggaa	ggcgggagag	ctcgggtgcac	ctcggacctg	cagaggggaag	300
gtgggagagc	ttgggtgcacc	gcanacctgc	anggggaagg	cgggagagct	tggtgcactg	360
cagacctgcg	gggggaaggt	gggagagctt	ggtgcactgc	acacctgg		408

<210> 742

<211> 400  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(400)  
 <223> n = A,T,C or G

<400> 742  
 gcacctccag agcatgaggg tctaagggga catgagtaaa gcatgtctgt gacctcagtga 60  
 ggaagggaga ggccagctgc actcctgcac ggggttccta gctgcagaag ggtcccgcct 120  
 aggccgaggg gaaacacctg atagcagaag aggcctggat gcacacctgg cacgccgagg 180  
 ctctccgccc agacacagtg ctccatgtca gcccctgcac ctgggggtgtg tgattcacgt 240  
 gcacagatgc cacaatcctg caccaatata ccacagatgg gggaaggtga gaggaagggg 300  
 gaagtgatgt gtaactgctc aagagatgct taaacctcca tagagaggag cggggcgag 360  
 gggcatctgt gtgtccgtca cactctgcag canggaaggg 400

<210> 743  
 <211> 378  
 <212> DNA  
 <213> Homo sapiens

<400> 743  
 gggcctacgg ggcgggggag gggcggcagt gagctcgggc ggcaaccgag ggacccgcgt 60  
 ccagatcttc agtgtctatt ggatttttcc aagagaaagt ttgtaaaatt ccttacctg 120  
 tagatgtgga tcagatacga tgattcagta gaagagcaca tgtcaggggc agtggaggct 180  
 ggctgctgaa ggatgaacgg agaggaagaa ttctttgatg ccgtcacagg ctttgattct 240  
 gataactctt ctggggaatt ttcagaggca aatcacaaag tcacgggaat gattgactta 300  
 tacaccagca aaaataatag gattgggaaa actggggaga ggcctctcaa gaaaacggaa 360  
 ttcagaaaca caggacat 378

<210> 744  
 <211> 403  
 <212> DNA  
 <213> Homo sapiens

<400> 744  
 gcaaaataca ctttcaaatt aagaatgggt ctgtgatgtc acatctagga gcacctaccc 60  
 atggacagac atgtcttccc atggaggagg ctttcgagct acccttggat gattgtgaag 120  
 tgattgaaac tgcagcagcg tccgaagtga ttaaataatga gtatcatgtc ttatattcct 180  
 gtagctacca agtgcctgta ctttacttta gggcaagctt tttagatggg agacctttaa 240  
 ctctgaagga catatgggaa ggagtccatg agtgcataaa gatgcgactg ctacagggac 300  
 catgggacac tattacgcaa caggaacatc caatacttgg gcaacccttt tttgtacttc 360  
 atccctgcaa gacgaatgaa ttcattgactc ctgtattaaa gaa 403

<210> 745  
 <211> 153  
 <212> DNA  
 <213> Homo sapiens

<400> 745  
 gtcaaaaata aaggaatcat acatctcaac ttactgagca atgccgtagc tatggaatat 60  
 gaagcatttg ttgactctt tttgtgagcc aggcattgct cagtaagttg aggtcaaaaa 120  
 taaaggaatc atacatctca aaaaaaaaaa aaa 153



```

<210> 746
<211> 398
<212> DNA
<213> Homo sapiens

<400> 746
gcgctggcca tgaaacacat ggatctgaag cagatggagc tggacacggc ggcgggccaag      60
gtggatgaac tgaccaagca gctggagtcg ctgtgggtcag actctcccgc gcctcctggc      120
ccgcaggccg gacccccctt tagggtaagc ctgggttccca ccttgatctc caaagccagc      180
ctctcgccac agtccagacc agaggcctgg atttcaggca aaattgcccc atatagttat      240
gcaggttgtg ggctcttcaa gggaacttga aaaaagggga ccaggccagg cgcgatggct      300
cagacctgga atcccagcac tttggaaggc gaggtgagag aattgcttga gactaagagt      360
ttgagaccag cctctacaaa tgatttttta aaaatctg      398

<210> 747
<211> 372
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(372)
<223> n = A,T,C or G

<400> 747
gaagaattct aaaggaagag actgctatga gatttgaagg attagtaagc actagctaag      60
taatgtaggg atgcacagag tgggaacaag ggggtccatta tcacagcaaa agaaatcacc      120
caaagattct gtgccagttg gagtgtgaaa cttctcagga tctgaaaaaa tccagagtag      180
gtaaattaca gagaataagg gagagaatgc tgcaacctga tgcctataag agctagaata      240
gcctcgttaa ggtctgatgt cttactcaag agtaaagtat tataagctgg gtggtgagag      300
gagtaagtgt cttatcaaaa gtaatgaact gctgtagagt tgattaaaga gaggnaagat      360
ttatctgaag ag      372

<210> 748
<211> 374
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(374)
<223> n = A,T,C or G

<400> 748
gcggagccta cggagttcac ggtgcaaggc atcgctccgtc actggaccag tgaggcgcag      60
gcgcgagctc cccaggggga ggtgtgggag gtttttcnana nanaactttc naanatgttc      120
cctgtgaggn cganngcngn gcgnttatag tntnaaagtg gtattgaggt atttttattn      180
ggtaanagcc taggntntgt tcaccaang gaanaaanaa nntncnancc cnancaactt      240
ctggggcgtg gtccgttcac acgtactct annaccntg ggcatnatgg aagttgtant      300
tnanacnatt aaggncccg tttcctgtna aacggnntcn naatncccta aaaaaggctt      360
gggaactttn ctta      374

<210> 749
<211> 373
<212> DNA
<213> Homo sapiens

```

<400> 749  
gaggtggtca cgggaatgggg ggcgctgctg tcctccccgg gggctgcagg ccgagaccgg 60  
gtgagggggcg ggggtgatgc tggcactctg gacggaaggg cgtcgtcttc gcagccgaac 120  
aggttggtgga cgcccaatcg tttttctgcc cgtagtccca atccgaagct aagctgtgtg 180  
gttttccctt gaaagctccc cagccaggct tgctgcctcc acccctttcg catctgaagc 240  
attttgcttc ccactcgaga gaaatcaatt ttcttaaca aacaaaaaaa aagatgtgca 300  
ggattttctaa taaatagcat ccttgatgg aggagaagag gaatgactcc ctcatcctgc 360  
cacacacacc ccc 373

<210> 750

<211> 399

<212> DNA

<213> Homo sapiens

<400> 750  
ccagccttcc ccgcccctctt cggcgccagc acctcccttg ccctccagga ggaccccagc 60  
ggcagcatct gaaacgtccg catttgagca gcacctgctg gactcccacc ggcagcaggg 120  
cgccctgctg tcctcctggg cccagcagca gagcacactc atggcccagc aaaacctgct 180  
gctgcagcgg ctggccgagc agagccagcg tctggccgat ggctggagg ccctcaaccg 240  
gaccctcgag aggctgggtg aagcacgccc taccgggaa gctcaccct cactccagga 300  
cggtagtctt gccagtggag tggccagggg cctgctggag gctcccagga cagccccaag 360  
ggcaccact cggggctcga ggtcttctca gggatgatc 399

<210> 751

<211> 369

<212> DNA

<213> Homo sapiens

<400> 751  
tttaaaatcc aactacagaa aaatttttaa ctgaaagatg ccttaataga atgatctata 60  
tcccttagag aaaagattag gacagtcctt tatccccttg aattactttt taaattttta 120  
attttctgat tttaattgca ataactgatt atcatatata agtactagga ttctggaaaa 180  
agtatttcat ctcaaatttc ctctaagtag ctaatcttcg agaatggtaa cttatgggaa 240  
cccccttgat tcccttgctt tatgacactg agcaagttac ttgagctttc taataccatt 300  
ttattcatgt gtggtatgac aatggggatc atgattatat tgatttatgt taccaaatga 360  
tttgagggg 369

<210> 752

<211> 364

<212> DNA

<213> Homo sapiens

<400> 752  
aaacacacag gcacccctgaa agaggccgag gctgagatgc aggagcgcta ctttgagcca 60  
ctggtgaaaa aagaacaaat ggaagaaaag atgagaaaca tcagagaagt gaagtgccgt 120  
gtcgtgacat gcaagacgtg cgccataacc cacttcaagc tgctggagac ctgcgtcagt 180  
gagcagcatg aataccactg gcatgatggg gtgaagaggt ttttcaaagc tcctgtgga 240  
aacagaagca tctccttgga cagactcccg aacaagcact gcagtaactg tggctctaca 300  
aatgggaacg ggacggaatg ctaaaggaaa agactggtcc aaagatagga ggagaaactt 360  
ttgt 364

<210> 753

<211> 386

<212> DNA

<213> Homo sapiens

<400> 753  
 attctacgtc actgctcaag tgtcagtcag ataaaagcca gtggcagact tgggacgaat 60  
 tggttgagca tctgcagttt ctgctgtcca gttatcaaca tgttttaaga gaacacttaa 120  
 ggagttccgt gatcgaccga aaggacttaa taatcaaaaag gattaagccc aaaccccagc 180  
 aaggagatga catcacagtg gtagacgtag agaagcagat tgaggccttc cgcagccgcc 240  
 tgatccagat gctgggggag cctcttgtcc cccaactcca agacaaaagt cacttggtga 300  
 agctcctgct cttctatgct gcggaactga accctgatgc agagcccttt caaaaagggt 360  
 ggagcgggctc ctgagggcct gcaagc 386

<210> 754

<211> 391

<212> DNA

<213> Homo sapiens

<400> 754  
 gcatctccag agcatgaggt ttttaagggga catgagtaaa gcatgtctgt gacccagtga 60  
 ggaaggggaga ggccagctgc actcctgcac ggggttccta gctgcagaag ggtcccgcct 120  
 aggccgaggg gaaacacctg atagcagaag aggcctggat gcacacctgg cacgccgagg 180  
 ctctccgccc agacacagtg ctccatgtca gcccctgcac ctgggggtgtg tgattcacgt 240  
 gcacagatgc cacaattctg caccaatata ccacagatgg gggaaggtga gaggaagggg 300  
 caagtgatgt gtaactgctc aagagatgct taaacctcca tagagaggag cccgggccgc 360  
 aggggcatct tgtgtgtccc gtcacacact g 391

<210> 755

<211> 390

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(390)

<223> n = A,T,C or G

<400> 755  
 caagacaatt ataggagatt ttcagaagga acagaaaaaa tttgttgaag agcaacatac 60  
 aaagaagtca gaagcagctg tgcccccatg ggttgacact aacgatgaag aaacaattca 120  
 acaacaaatt ttggccttat cagctgacaa gaggaatttc ctctctgacc ctccggctgg 180  
 cgtgcaattt aatttcgact ttgatcagat gtaccccgctg gccctgggtca tgctccagga 240  
 ggatgagctg ctaagcaaga tgagatttgc cctcgttcct aaacttgtga aggangaagt 300  
 gttctggagg aactactttt accgntntcc ctgnntaanc agcanccccc tcangggcct 360  
 gctgcccaca gcagnccnna gggnnnggagg 390

<210> 756

<211> 384

<212> DNA

<213> Homo sapiens

<400> 756  
 ggagaacgtc cctccttccc ttttgcctct gtcccgccacc ttctacctga tagatgtgaa 60  
 gcccagccg attgagatac cactcagtgg ggaggctcca aagactgata ttcttggtga 120  
 attacctact ttcactgaat ctaaagagaa catggtggat cttgcacctc aactgaaggg 180  
 aactaaggat gaagacttta tacagccgcc accagttaca tcatcaccca taacaccatc 240  
 aacacctatt tcattaccta aaggaccat cacttcttct gaagaacctc cactccaggc 300  
 caaatcacia atgacggccc agaacagcaa ggctagttca aaaggagcat aaaggactac 360  
 ttgaggatgg agctcactct cttc 384

<210> 757  
 <211> 384  
 <212> DNA  
 <213> Homo sapiens

<400> 757  
 ggaggcaaag agctgttggg agtgttttgt ggggtctctt cttccttctt tgtggctaca 60  
 tgaagcctga gtctcagcct ctggtttctt ggtttcttct cactgccctg ggcaaaccag 120  
 cttcgaactga acgtcagcca gtccagagag taattaaaag agttaagtct caaaagtaaa 180  
 tctccgggaa gagccctcag tggtttcaga cccccaggca cttgtcctcg tgcctcctt 240  
 gaggcgtcct gtcctactgg acatgctgga gcctgccctg gtccttgtgg accatggaat 300  
 ttgccggggg ttgggggggca ggggtggaga gaaataaaaac ttcctgtgat ctatgtatcg 360  
 gccagtaga tagatctgga taga 384

<210> 758  
 <211> 374  
 <212> DNA  
 <213> Homo sapiens

<400> 758  
 gtttgttaac ctgtgcttta taagatttga aggaaaggca ttcattggtta ttacagacgg 60  
 tgccaccaga aaatgtctct gctaaatgca gccagtagtt agattgcttc tttctccagt 120  
 ctccccgcga aagaaatttg acgtgattct gaatgcactg gacatgtctt gattgcgtct 180  
 ttacatttca cagtgtctta aaagaaaggc aagccagtgt ttaatttcag aatcagattt 240  
 atgctctctc aatttataaaa atgctgggca acaagagcga aactccgtct caacaacaac 300  
 aacaaaaagt ttggtatggt tctctcaaga aaaaagcatg gtgagtccag acagcagcaa 360  
 aagcttttgt gaaa 374

<210> 759  
 <211> 373  
 <212> DNA  
 <213> Homo sapiens

<400> 759  
 gcctctgctg ccgccagccg ctcactctca aggcctttga gatcatgttg gctgcggggcg 60  
 aaggggaaggg tgtcaacaag aggatcacct acaccaacct ctaccctctc cggaggacat 120  
 tccacctgca cagcgaccac ccggagctgc tgcggttcag agaggactcc ttccaggctc 180  
 ggggtggaga gacctacacc atcggcttgc agtttgcgcc tagtcagaga gtgggtgagg 240  
 aggagatcct gatctacatc aatgaccatg aggacaaaaa cgaagaggca ttttgcgtga 300  
 aggtcatcta ccagtgaggg cttgagggtg acgtccttcc tgcggcacc cagctggggcc 360  
 tgtctgtgcc cct 373

<210> 760  
 <211> 348  
 <212> DNA  
 <213> Homo sapiens

<400> 760  
 gtgaccatag agatcatgct ttacatgctt tgcattttgt ttgttagcatt aaaaagatga 60  
 cttttttcaa tgtcaattac tatagtctga cattgtactt cataattgca caatatgaat 120  
 gtaccatggt ttattttaact aatctcataa atttttgtga tttttttccc ccacggaatg 180  
 cttcattatt gtaaataaca atagaatacg catccttcta acatatcttt actaattata 240  
 tctttactaa catgttaatg ttaatttcta gatggactgt tggtcagatt atttatgttc 300  
 atcaaatgct ttttccacta attcctaatt taccctccag aaacattg 348

<210> 761

<211> 347  
 <212> DNA  
 <213> Homo sapiens

<400> 761  
 gtccttaaga atctagactg acatagtgga aaataaggta cagttggagc gaggtgagaa 60  
 aagcccagta agagtttgat ctggtcctta agaagcctcg gaaggttttt agcgatgaag 120  
 agcattgtgt gtgtgtgtat aaagaattgc aagggggcaa ggctggggcc ccaagcctgg 180  
 atggtggcaa gaaatcgggt tgtgtgtcaa gtgtctgtat aacctgggat actagaaatg 240  
 aaggagggga gtggtttgaa agatactgaa agcaagaatc atgggatttc tgcctgtcag 300  
 ataggggcat ttttaataagt ctctaagaa aggaatgccc tttgatt 347

<210> 762  
 <211> 348  
 <212> DNA  
 <213> Homo sapiens

<400> 762  
 gttacactgt atgtcctgtt gttaaatttct gtctctgttt atcaggcaac tttctctcag 60  
 aagctcactt ggaaatcaag ggaaataata caccgtgcag aggaaagaga atctggtccc 120  
 ttgtgcctcc ctgctgtggt gcagcatggt ctgatgacca agggcacagg atcctatttc 180  
 taggattagt cagaaagaat tgagcacatg tctgtagact tttgcctcag tattatattt 240  
 tagatgggtt agtcggagct gttacatttg gcagcattcc ttgttagcat ttgataaaca 300  
 attattgcca aatgttagca aggaaacctg ccaaagtta cagctcaa 348

<210> 763  
 <211> 349  
 <212> DNA  
 <213> Homo sapiens

<400> 763  
 gggactggaa gcctgccatg gcggtttctg cggcggagac gcgcgtgttt ctggaggtgc 60  
 ggggacagct gcagagcgcg cttctgatcc tgggagaacc gaaagaagga ggtatgccc 120  
 tgaatatttc cataatgcca tcttactcc agatgaaaac ccctgaaggc tgcacagaaa 180  
 tccagcttcc agcagaggtc aggcttgtag ctctctcttg cgggtgggcta cagtttggtg 240  
 ttggagatgg actgcacctg cgactgcaga cgcaagcaaa attaggcaca aaactgattt 300  
 caatgtttta tcaaagctcg caaaccacaag aatgttgac gttttattg 349

<210> 764  
 <211> 345  
 <212> DNA  
 <213> Homo sapiens

<400> 764  
 ggaaggggaag gcaggacatg ggccggggccc tggcccagga cggcccaaact ccaaaaacct 60  
 tcagcccaag atccaggaat atgaattcac tgatgaccct atcgacgtgc caccgatccc 120  
 caaaaatgat gcccccaaca ggttctgggc ttcatgtgag ccctactgtg ctgacatcac 180  
 cagcgaggag gtccgcacac ttgaggagtt actgaagccc ccagaagatg aggctgagca 240  
 ttacaagatc ccacccttg ggaagcacta ctcccagcgc tgggcccagg aggacctgct 300  
 ggaggagcag aaggatgggg cccgggcagc ggctgtggct gacaa 345

<210> 765  
 <211> 339  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(339)  
 <223> n = A,T,C or G

<400> 765  
 ggaggctgag gcatgagggt tgcttgaacc tgggagatgg aggttgagct gagccaagat 60  
 ggtgccatta cactccagcc tgggtgacag agcaagactc catctcaaaa aaaaaaanac 120  
 accaaanatt ttnttaatcn ctgancnctn tttntntca nttataagaa attgaaaatt 180  
 ntaatnancc tcctatttaa tnaatnaana atngatttaa ngattnagtt naaaangtta 240  
 aattcntttt aaaananccc attacntggt ancncaaana ncatgttttt nttntntttt 300  
 nttttnaaac aaagtntcnn tntgttgccc aggctggag 339

<210> 766  
 <211> 338  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(338)  
 <223> n = A,T,C or G

<400> 766  
 aaacacttta attattttct gttaatatta ctcttaatat aaaattcagg tgcattgaaa 60  
 ctgtagagga taagcaccta atcttgagc atcagagctg atgctagtgt gaattgcttc 120  
 tttgtggtta tgaggaaaca acgctctttt ttgcatatgg agagagctgt accttaggcc 180  
 caacatgtta cttggcctaa tgtttttgtg cagtgtaccc cctgtacagc tgtatgtgat 240  
 tggccaacct tatctcttat ctcccatagc agccttaatg tctccttgtt aactctcatc 300  
 tcacttaaag ttacttgntg aatgnctctc attcttgc 338

<210> 767  
 <211> 417  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(417)  
 <223> n = A,T,C or G

<400> 767  
 gtcaatgaat aaagaaactg gtctcagtgct ctgtgaaaac atcgaggaaa aggacagctt 60  
 taaaaacttg cttcttgacc tcaggtgatc cgccgccta ggcctcccaa agtggtggga 120  
 ttacaggcgt gagccactgc acctggccag ttgagctttt taaagataac agaaaggact 180  
 gctgagaatg agtaaaccta tgtccgtaaa gagaattgca tgatttactg caagtattcc 240  
 tgggagtga gcatcacgta cacactgctg gtctcgtgtc ctctgaaga tagccctca 300  
 cacttcacag tgggttgaga aggttctttt tctctcctgt cttccctctg ggtccacct 360  
 ggtctagcat tttcatctgt gttgaaattt gnttttcatt tctgttttaa gtccttg 417

<210> 768  
 <211> 418  
 <212> DNA  
 <213> Homo sapiens

<220>

<221> misc\_feature  
 <222> (1)...(418)  
 <223> n = A,T,C or G

<400> 768  
 agtgggtacc tgcattcttt gctctatctt tgtgtgtctc cgtatatctg ttttttggtt 60  
 ataattagtt gcatttattt ttatggtttc tgtatcttaa aatttttttt aagttataga 120  
 agaaatacat gctatcagca aaaaaaaaaa aaaaaaaaaa tccagctncn canaanccag 180  
 gagngcgaag caaatagccg nttcacgtcc cacaccctgg cagcagntgc gcccggtct 240  
 gtccgganat gngtgtgca ancgatttcc ancncaaaaa tctggacttc tgtttnttat 300  
 gaaagcagct gatgccacac tgtgtgccct gtgccgtact gtgccaggca cctggacgga 360  
 cctggncttc ccctgtgcct ctgaaggcg gacggcggtg tgtctgcncg gcctgcag 418

<210> 769  
 <211> 414  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(414)  
 <223> n = A,T,C or G

<400> 769  
 ggtgctcctc tggtttttca aggttttgga agagctaggg gtcccgggtg tcctctggct 60  
 tttgtaggtt tggaaggagg ggatccatct ggctcactc tgcctcacc attaatgct 120  
 ttgcccatag gaaagtctga agataacacc agcatgggaa tttatttaag ggggtgggaa 180  
 cacaagctgg gacaacctt gcccaagcag gaagcttata aaattcatct cagacagagg 240  
 gatggcaggc tgctgccggg ggtggggggc gccctcttct cccaccacc cctgctggca 300  
 tcagcagctg caacagaatc ctctcaccac ctggtgctta tttataaact acccccttgc 360  
 tcagctccat cagaattggt aaagccaaag ctacaggaga ataaaatgna gata 414

<210> 770  
 <211> 408  
 <212> DNA  
 <213> Homo sapiens

<400> 770  
 gtaggcaagg acgtcagagg gctgatgggg ccatatcagg tggggccttg agggctggcc 60  
 atggggactt tgcttctacc ctgagtgaga tggagctatg gatgtgaact gataggggtg 120  
 ttcacgggct cttggggagg aggggaaggag gggctgagag accagggagt aggctgctgg 180  
 gctggtccag gcaagaggta acagtggaca ggaccaggcg gagtgagaag aggtcagatt 240  
 tggaattatt gtgatcagca gacagctctt acctgggggtg tgaggggaaag aggagcccca 300  
 gaggactccc ctgtttttgc aactgggaaag caatggtcag ccatggcagg gtttgcctg 360  
 catcaagaca agcgagccct tgctggcaca atgctcatgc tgtaattc 408

<210> 771  
 <211> 423  
 <212> DNA  
 <213> Homo sapiens

<400> 771  
 ctttggaact acgtagggat agggagaacga aacttctgta cattttaatc tgaataattc 60  
 ttcaggattt aaaattaatt ggctctggct tggttggacc gtactcggat ctgccacct 120  
 ctgcgtttcc cgagtcactg gcgaagagaa ccacatcaca tcaccgtcag ggagaagaag 180  
 atagcaaaat tggggaagcc tatttctgtg tagaatgtat gttaataact tatttacttc 240

taaagttgga	aggcaaagaa	gagagtgagt	ttactgttct	aaaccctgtg	acctaatagt	300
cctctaatagc	tccgggtccca	gttcctctgg	gaatcgtcct	gtatgcaaca	tcttcacaag	360
agtggcaggc	agttgaatct	ctggccttcg	tgggaccact	ggacatctgg	cagagaacca	420
gga						423

<210> 772  
 <211> 397  
 <212> DNA  
 <213> Homo sapiens

<400> 772						
gcgagactcc	atctcaaaaa	tagcaaaaaa	caaaaaaaca	aaaaccaaga	aacaatttta	60
gacattagct	tctttttccc	catcattata	aagttatttt	gccatttggt	tttggttcct	120
atattgggtt	tatcagaatt	aggtaaatcc	tttttttctt	gcttcttcca	cctaaaaaat	180
gatagtaaaa	catatctttc	tgccagacttc	tgaagaaaat	tatataaaat	tacatgaagt	240
ggtaccatta	gtgttatcaa	gtagaaccta	caggataggt	ggcagatttg	gaagtttccc	300
acctatttta	atgttagaga	ccacatatct	attgcattat	tgctaaaaaa	aaaaattcct	360
cactcaatca	aacatatttc	caatacctgg	gaaaagc			397

<210> 773  
 <211> 419  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1) ... (419)  
 <223> n = A,T,C or G

<400> 773						
gagactttca	attttggaag	caaactgagc	tattcttacc	agccaaagtt	atactaaata	60
agagacttgg	gggagcaaat	gtttttcagc	cttcagaaat	gaaagttaag	gatttttagca	120
ctaggtaaaa	ttcagtataa	taggctgaag	tggagtaagt	gaaaacctgc	cttttgccac	180
tcttaaaaaat	tgtgcccaaa	atataaaagt	gtggaacttt	agaacttgga	ataattttat	240
tgcagtcttc	cattacatgg	aaatagcata	tctaatatct	aggttacttg	agagaccagc	300
taatcatctc	tgttgccat	gtttaattgg	caaaaagcaa	ttcatgataa	ataaaattac	360
tgctttccat	ctactgggta	aaatgactat	tgaaataagt	atgaatgtgg	ncagaggat	419

<210> 774  
 <211> 390  
 <212> DNA  
 <213> Homo sapiens

<400> 774						
cttatccctg	tttgatttct	gagtttggat	taataactat	gttttttaac	ttcaacattc	60
tcacaaacaa	tttctgcata	aaacttcttc	tttaaagctt	aaaaagaaaa	aaaaatctac	120
ctaattggagc	actgaactag	aacacaaaat	acttggttcc	taggcctggt	tctgccatca	180
actagcagtg	tgtgagtttg	ggcaagtttt	ttcatcatct	atccaggcct	gctttgctcg	240
tttgtcaaag	agggatggct	ttgcagatgg	ctaagtttcc	ttcaggctct	gacatctgcc	300
tcatgacttt	ggcactcttg	tcatgaagat	gaagtgcacg	ttcttttaaa	gtgggaagcc	360
agacacaggg	tttctagttt	gcctgagatt				390

<210> 775  
 <211> 392  
 <212> DNA  
 <213> Homo sapiens



<400> 775  
 ggtgcgcgct gtgggctgcc tccccgtgct gtgtagcggg acggcaggtc atttattggg 60  
 gaggcagtgt tccctaaaca ccttaccagc agcttccatt ttggcatgga agagtgttct 120  
 cggcaatgtg actgcagatg agctgtggaa aggcgcttta gcagagactg gtgctggagc 180  
 aaaaaaagga agaggcaaaa gaactaaaaa gaagaaaaga aaggatctga acaggggtca 240  
 gatcattggt gaagggcggt atgggtttct atggcccgga ctgaatgtcc ctcttatgaa 300  
 aaatggagca gtgcagacca ttgcccaaag aagcaaggaa gaacaggaga aggtggaggc 360  
 agacatgac cagcagaaaa aaaaatggga cc 392

<210> 776  
 <211> 415  
 <212> DNA  
 <213> Homo sapiens

<400> 776  
 ctgtttttcc cagcccgtta ctctgtagc tctgaatgga aacagcagct cacatgtcac 60  
 ctctgtgtga cggactcggc cccacccaga cacacaggtg tggttgtcag cgagcacctc 120  
 aggagaactg agaagctctt tttcaccatt ctttcccaa atcagtcaaa accttttaaa 180  
 aaccattatg agttgtgaga aggtttcaac agctatgttt tcaaagtgtg tgtatatgat 240  
 ggcactgtgg tcagttcacc aagagcagca ctgagatggg tggatccagg tgcacctga 300  
 aaagttaatt gcacaaacct ttgctttgac cccaaatagc cttgctagt cccttcctg 360  
 cagcttccca gacaatcaac aggggtccatg ggggcagggc ctggcacagc aatgc 415

<210> 777  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(393)  
 <223> n = A,T,C or G

<400> 777  
 gctttttcca gaacctcggg atccctggag agagcatttc ccttggettcc agctgcagcc 60  
 cctctttcta gatggaggga gctccatcgc ggggggtccc caggggggaca gataccttcc 120  
 tgttccctct gcccaagggc ccacgctcag agcactgcct cccacactgt ccctctgcag 180  
 atcaaccgag gcattgactc caacagagag tggattctaa tttagtcttg gctgggaccc 240  
 ctttcccgca aaaagatctc tgacctgatg tcttgccaag tctctacct cctcgggctt 300  
 acatcatgga aactgtctct tttacttcat ggaattcaag aacactttct tccttctggg 360  
 cctgaatctg aagccagtca cnaagggaag gcc 393

<210> 778  
 <211> 392  
 <212> DNA  
 <213> Homo sapiens

<400> 778  
 gttcaacata ctacagactc ttctctcgaa gaaaaacaaa ggacattaga ctcaggcacc 60  
 tctgaaattg tgaaatctcc cagaatcgag tgttctaaga caagaagaga aatgcaatca 120  
 gatctcatat atagaacctg tgacaatgct ttcattttgg cgcttttcac ttctattgtg 180  
 gttcaactca taatgacaag agacagtgat ggttatgaaa actcaacaga tggtgaaatg 240  
 tgtgacaaa atgctctgga ggaagattca gaaagcgtaa gtgaaatagg aagtgatgag 300  
 gaatctgaaa atgaaattac aagtgttggt agagcttcag gtgatgacga tggaaagtga 360  
 gatgatgaag aggaggatga agatgaagag ga 392

<210> 779  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<400> 779  
 agcggcgctg gcttttagtg aacgacgtga aaattacttt tcccactgaa acacacccaa 60  
 gtatatgccc agccttcatg aaagtgaaca gagaaacgaa gcgcctttat gtgggtggcc 120  
 ttagccagga catttctgag gcagacctac aaaatcagtt cagcagattt gaggaagttt 180  
 cggatgtgga gatcatcaca cggaaagatg accaaggaaa cccacagaaa gtttttgcac 240  
 atatcaacat cagtgtagca gaagcggacc tgaaaaaatg taatgctgtt ttaaataaaa 300  
 caaaatggaa aggtggaaca ttacaaattc aactagcaaa agaaagcttt ctgccagatt 360  
 ggcccaagag agagaagcag caaaagctaa gaaagaagaa t 401

<210> 780  
 <211> 396  
 <212> DNA  
 <213> Homo sapiens

<400> 780  
 gttagcatgg atgaggaaaa atttgtggat gccgttaact ctgccttttg gagtgatgct 60  
 gaccacacgg acttcacga cacagctggt gccatgctgc agtatgctgt cagccttctg 120  
 aagccacta aggtctcggc tcgccagctg cccccaagcg tagccagggt ggatgccaaa 180  
 agccgagttc tgtttcctct tgggttggga catgctgctg agtacgtcag gcctcgggtg 240  
 gcgctcattg gggatgcagc ccacagagtc catccgcttg caggacaggg tgtcaacatg 300  
 ggctttgggg atatctccag cttggcccat cacctcagta cggcagcctt caatgggaag 360  
 gacttaagtt tcatgacca cctcacaggg tatgaa 396

<210> 781  
 <211> 385  
 <212> DNA  
 <213> Homo sapiens

<400> 781  
 gtaactacaa gttactgggc agggatgggt agctgggagg tatggatttc atttccatta 60  
 ctaatgctgc caattgctga taatagacgt gcccaggaa tcgctgcaag ggaaatggaa 120  
 catgggtctc cttctgtggc ccaatctgga atgttagtgg tgcaatctcg actcactgta 180  
 acctccgctt cccggattca agagattctc ctgcctcagc ctcccaagta gctgggatta 240  
 cacgtacgca ccaccatgcc cggcaaattt ttgtattttt agtagagata gggtttcaac 300  
 atattggcca ggtggtctc aaactcgtga cctcaagtga tctgcccgcc tcagcctccc 360  
 aaaatgctgg gattataggc gtgaa 385

<210> 782  
 <211> 376  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(376)  
 <223> n = A,T,C or G

<400> 782  
 aatttttgta ttttttagtag agacgggggt tcaccatggt gccaggttg gtctctaact 60  
 cctgaccttg tgatccgccc accttggcct cccaaagtgc tgggattaca agcatgagcc 120  
 actgtgcccc gctgagtcta cctttttttt tttaggagtt gtaaataaaa caagaaaata 180

acactattag	ttatTTTTatt	actaactata	caactacttt	aacanaacac	tntTTTTtcc	240
caggggnggg	gtngggngta	aangggcctn	ttgtaaaaat	nactnttggn	catggnaatg	300
ggggattnat	aanaattttg	ccatnttagg	gctgctcaca	gnatttgggg	ccaaacccta	360
cgngaataata	tgtggg					376

<210> 783  
 <211> 381  
 <212> DNA  
 <213> Homo sapiens

<400> 783						
gctaaatgca	ttttagaaat	ggtgacttct	gtggTTTTct	tagcatttgt	ctctaacaaa	60
tggtgaaata	attactcatg	gccctctctg	ccattgtctt	tcattTTTTc	acagtgaat	120
tagaccctt	tacttcacca	ttctgccact	gcaaattaag	tataaagaaa	atagcaagag	180
tgtccacacc	agtagacagt	aagcttctct	acctgtaagt	gatgaaatca	tagctaatgc	240
acttgccatg	gagttttcaa	gatgattggg	gtcagacagt	tttcactttg	tttaaaaagt	300
gttggtgggc	ttttgtgggtg	gtgttacaat	cctctggggg	cttaggagga	tgttgatgca	360
acttttagaa	gcttttaatt	t				381

<210> 784  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(393)  
 <223> n = A,T,C or G

<400> 784						
gctcattatc	tcttgttgaa	ttaccatagt	ctaaggggta	atttaccatg	gatagtatta	60
gggattccaa	aaccccatct	tatcagtgtt	ccacagttta	tcagactcag	ctagtacaca	120
ctaaatgact	cttaatagat	agtttattaa	cttacaatga	gaaatattag	gtcaagcgga	180
tgtttgcgtt	gttataaaca	cattgtctct	gttcaggcac	aacttaaagt	cacattgcca	240
caggtttctt	ggggcacaca	gaatcagtgc	aggaagagag	gctgctgctt	tgcgtggccg	300
atggcatgag	tcctttctaa	tccgaccaac	cgctgnngca	tcctcctgct	gcagctgagg	360
tgaacggggg	gcttgcatth	gctgcagtat	ggg			393

<210> 785  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

<400> 785						
gcggcttctt	tccggctctg	cgctcctggc	tggggctgct	gggcggctgg	ggccgggtcc	60
ccgcacccgg	ctctcaagtc	cgggattacc	cgcagggcct	gagaagcgct	ttgcccccta	120
cagcctctcg	agccagccct	tggctcggaa	ttggagaatg	gtcctcatto	ttaccagat	180
ctcacacgcc	gtccccgctc	ccgatcccag	ggggtgacag	gcgcgcacgc	ctttcaaaca	240
cgtgttaaaa	tccaagacgt	cgtctcaa	gccagagatt	tgcgggaatg	ctcctggaag	300
gcctcaaaa	cgccgcaaga	acagtccact	ttggaaaagt	aagaatggaa	tccttgggaa	360
ggagatgaaa	aaaatgagca	acaacacaga	ttt			393

<210> 786  
 <211> 374  
 <212> DNA  
 <213> Homo sapiens

```

<400> 786
gtgcccctcc actccgggtc ccaggggaga ctgacaccca ccaaggcaac cacctgcttg      60
ttacagagcc ctgcaggagg cagctcacca cccacgagga gggacttagg cagcggactt      120
gctgagggga gagccttggt aggcaaatat tatcacacta atttcacaaa ggaggaagtc      180
aaagctggcc ctgcagtatg aagactcaag cccagacttg ctgggtcctg cctgcatctc      240
cctccacctg ggtctcctgt ctccctacct gcggaaagct cacactctga atcattgtgc      300
atggctctta ccccgccacc ccataccttg gggtgctcac ctctgcatc acctgtgccc      360
actcaacagc acac                                                    374

```

```

<210> 787
<211> 382
<212> DNA
<213> Homo sapiens

```

```

<400> 787
gcttaaagga ctttttatgg tacttgacta tctttttagg caaaatagca gatttgcaga      60
tgattataaa attgcgattc aacagactta ctctgggaca aatcagattg atatttcaga      120
caaaaatggg ttgttggttc taccaaaaaa taagaaacgt tcacgacaga aaactgcagt      180
tcatgtgcta aacttttggg gcttaaatac agctgtggcc ttttcagata ttaatggcaa      240
agttcagacc attgttttga catctggtac attatcacca atgaaatcct tttcgtcaga      300
acttggtgtt acatttacta tccagctgga ggctaatac atcattaaaa attcacaggt      360
ttgggttggt accattgggt ca                                                    382

```

```

<210> 788
<211> 381
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(381)
<223> n = A,T,C or G

```

```

<400> 788
ggcaagtcaa tcttttttat ttccttataa aattaactct tcaaaagctg ttaaacagag      60
agttatctta atttttattg cagtaggagg aaatatattt aaaatatttg tagatttata      120
gcaaatagag actcgttatt taaagggtta ataacaattt gttcttttgt tgtttttgcc      180
agtttagggc agtagctgct tttgtcataa atatcttctt accacatcaa aaatgctgct      240
tttaaaattt ttgtttataa attgagaagg aattttctct ctataagttt ctgtcattga      300
acagatcacc attaaaaaga atattagaat ccagcatgaa gataatggct aataaaaaatg      360
aggnacatac tttataaaaac c                                                    381

```

```

<210> 789
<211> 366
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(366)
<223> n = A,T,C or G

```

```

<400> 789
gtatttttga tctgagaata atctctatga ctctcggtaaa ctctagtgtg tgttgataaa      60
aagtaatcat cagttttctt attttgccaa atatatatac tttaaatttt atttttttcc      120
aggaacacta tgttgagata tcatttattt tataattaac gcatgttctt ttatttgttt      180

```

ttgttttttt	tttgaaacgg	agtcttgctt	gcattgcccc	ggctggagtg	caatgggtgca	240
atcttggctc	actgcaacct	ccgcctcccc	ggttcaagcg	gttctcctgc	aacagcctcc	300
taagtagctg	ggattacagg	catgcgccat	catgcccagc	taattttttg	tatttaggan	360
agatga						366

<210> 790  
 <211> 368  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(368)  
 <223> n = A,T,C or G

<400> 790						
gctggaccca	gcatgcacac	ttctcggcta	agagtcaccc	tggatgaacc	accattgcc	60
gcggggagca	tgttgcagct	ttcccacgca	gtggatgaga	acgaagggtta	cgaccattgt	120
gtgggaggcg	tctgtgtagc	aattgctgga	atcacttggtg	gcattgtaga	aagactgagc	180
gtgggaaaga	agacgcattc	tgaagtcacc	ccgatttatg	ttaaattatc	accttgacta	240
ctgctataga	acgaatgttt	atgtccccc	cccaaattcg	tatgctaaga	cctaatagcc	300
aataagatag	tattaataga	tggggccttt	gggagggtgag	tggctcatga	aggcagaagn	360
cttcaaaa						368

<210> 791  
 <211> 361  
 <212> DNA  
 <213> Homo sapiens

<400> 791						
ggaaggccaa	gttactttca	tggctcttacc	ctctgctttt	ccccctttttg	caaaaaacca	60
ctggccaaat	ccgaaccatt	gcccttgttt	cccccaacgtt	ctctctcaga	tctttgtctc	120
gaagggaaaa	catagtggat	gaaaagggtgt	ggcaggcttt	ggcaccttgt	taaaatttct	180
agtcactctgt	ggatgttacc	ttgcttgctcc	acagcagcca	gtcacccctgg	ccagtcaccac	240
ttcctggata	attctctacc	ctcacccac	agagccatct	ctctccagac	caaaagctgg	300
aaggagagtt	gctttgagag	cttgttttta	caactgcatg	tttattatga	tctttctctt	360
c						361

<210> 792  
 <211> 361  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(361)  
 <223> n = A,T,C or G

<400> 792						
gtcacgttca	cactacaata	tcaattgcaa	ctcaacaagg	actccagtcg	ccaaggagct	60
taattataat	ctagacactc	atacgtctac	tgggaggatc	aaggcagctg	agaagaagga	120
agcgtgtaat	gtagaaaagca	acagaaaaaa	ggaaacggaa	cttcttggtc	ctttttctaa	180
aaatgaatca	gttcccgaag	ttgaagccct	gctggcaaga	ttacgagctt	tataagttaa	240
actgggtttt	aaaaaaaaatg	attaagccaa	atataaagcc	atgctctaaa	ctataacact	300
tgaaaaaaatt	gctttttatgt	aagtgacttt	atatagnntt	aaattatgat	atatattaaa	360
a						361

<210> 793  
 <211> 386  
 <212> DNA  
 <213> Homo sapiens

<400> 793  
 gtttattcca aatgatagcc tgccttcccc aagtacaatt gtatctgggtg acattcctgg 60  
 aacagtaaga agttggtacc atggacaaac cagcatgccg ggaacacttg tctctgttt 120  
 gcctcaaata aagattatta gtgctgggca caagtatatg gaacctctgc aggagattcc 180  
 atttgttatc ccacgaccca tccttgaaga aggtgatgct tttccttgga cgatcagctt 240  
 gcataatttc agcatatata cccttcttgg aaaacaagtg acactttgcc tagtggaacc 300  
 tatgggttgc acctccactc tagctgtcac gtctcaaaaa ctgcttgcta cgggacctga 360  
 tacacgacat tcatttggtg ctgctc 386

<210> 794  
 <211> 352  
 <212> DNA  
 <213> Homo sapiens

<400> 794  
 ataacttggga cagtctatcc ttactagaag ttgttgactt ggtggagact actcaggatg 60  
 ttgtagatga tgtgtggaga caaacagAAC atgatacatta tcttgagtca cgaatgttgc 120  
 atctcttaga catcataggt gggtcatttg gaaggtttgt tcagaaaaag ttgggaactt 180  
 tgaacctgtg ggaagatcct tattatcttg tgaaagaaag tctgaaagct ggtatttcaa 240  
 tttgtgaaca gtgggtgata gtctgtaatc atctaacagg tcagggtgtgg cagcgctatg 300  
 ttctctatcc atggaaaaat gaaaaatatt ttccagaaac acttgacaaa ct 352

<210> 795  
 <211> 345  
 <212> DNA  
 <213> Homo sapiens

<400> 795  
 ctaaaccaga gctctgacct agatgtcact gtagttggag agtcttaaca gtagctgatt 60  
 tactaattgt catttcagaa gatagtaaga ggtggaaatg cccagtgaa ttttggttaac 120  
 attattattg agggcctgct gtaataaata tctaggaact atttaggtag tagaaaaaga 180  
 gtatatgtcc tttctgtctg ccttcttttg gttttttgct tctcttctgc ctttaattaaa 240  
 catgatttgg aatagttatt ttaccttat tactcaagtt aatacttttt ttaatgagca 300  
 gtatgtcaca tcacctaaag atgactgctt tttaaccagc ttcta 345

<210> 796  
 <211> 346  
 <212> DNA  
 <213> Homo sapiens

<400> 796  
 cttttttaaT cttgaaaaac caattgttta cttgaaactt gaaagtagca tatttttctg 60  
 ttttttggtt gtttgttcat ttgtattagc acaatttaat gtaattcctg gtttggaggc 120  
 agcaagacct atgagcaaga actatttact tgacctctgt ttttttctct tgttcttgtg 180  
 tggcttgaaa tctaaaacta gactttatta tgatagattt cctataagcc aatttctaatt 240  
 aacaaataga tttattattt aatctgtacc ttctatcttc tcataattcg tggctttaca 300  
 gccttccaaa ataactccag ttgggcaccc atgagctagg atcaaa 346

<210> 797  
 <211> 337  
 <212> DNA

<213> Homo sapiens

<400> 797

gccgaacttg	cacagctttt	cccaggctca	gtcattgac	ccccagcagt	caatcttgct	60
gcacataaca	aaaattccaa	caagtccaga	atgaatccac	ttggttctgg	tctagccctt	120
gcaatttctc	atgcttcaca	ttttcttcaa	cctccgcctc	accagtccat	tattatagag	180
cgaatgcatt	caggagcaag	aagatttggt	accttggatt	ttgggaggcc	tatattgttg	240
actgatgtat	tgattcccac	ttgtggagac	ttggcctctt	tgtcaattga	catttggaca	300
ttaggagaag	aggtggatgg	aaggcggttg	gtagtggt			337

<210> 798

<211> 344

<212> DNA

<213> Homo sapiens

<400> 798

ctaggaggca	cagaattctc	attctgttat	ccagttcatt	ccagcaatca	tagttaatac	60
agtacttggt	gacacgccct	accccttct	cttccaagtt	tcccactcac	ttgaggagga	120
aaaatggcaa	aagaaagctg	tctagggttt	taccattgaa	gggtggaaga	acagagacaa	180
agaggagctc	tttttctgtg	agctgggttg	cacaggaaga	atgtcacagg	gaacccaaaa	240
gcacagaaaa	aggaagtgt	ggtgcatatt	tttgagttaa	aatatttccc	tattttatca	300
tgattactaa	gtgagtagta	tagacagaag	tatataacta	atgg		344

<210> 799

<211> 347

<212> DNA

<213> Homo sapiens

<400> 799

attcttacgt	gatagtttgt	tttccttggt	tgcttactta	tctttcttca	ttagaacatc	60
aagttccatg	ggaagagaga	cttgggctgt	cttccatgcc	tgacagtagt	agatgcttca	120
taaaagtttg	catatgcaaa	tatggaagtt	ttcatccttt	ttgctataaa	ggatatctaa	180
gtttattatg	tggaaatttt	aaaaagatac	ttttacattg	aagatttttt	tccagatgat	240
tagagaaatg	gaaatagctt	aactagtaca	aagagcactg	gacaagaagt	caaaacaaca	300
ggattcttta	atcattctgc	aactaattac	atttgcccta	tagcaga		347

<210> 800

<211> 346

<212> DNA

<213> Homo sapiens

<400> 800

gcgccgggaa	agatggcggc	gtctgtggtt	tgaattccag	cggcgccgcc	agagtctgaa	60
caagagctgg	ggtggagggg	gcggggacct	ggggagcccg	gcgggtcgct	atcgcggggg	120
gtactagtgg	cgccgccgcc	acagacacca	acgccgtcgc	cacctctgta	tccatgatgg	180
acttggtggt	ggaagaggac	gtcaccgtcc	ctgggacgct	cagcggctgc	agtggccttg	240
ttcccagtgt	accagatgac	ctggatggca	tcaaccccaa	tgctgggttg	ggaaatggtc	300
tgtccccaaa	tgtgtcaaaa	aaaacaagtg	tcttccacca	gagcac		346

<210> 801

<211> 342

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(342)  
 <223> n = A,T,C or G

<400> 801  
 gagctcatgg ccttgcacct tcaagtgcac cacagccgcc gggctagggg ccgcccggcca 60  
 cccagggctg acgcgtcccc gccctatgcc cgagtaccat caggagagac ccctcccagt 120  
 ccttcgcagg aaggggagga gggcttcggg ctgtccagac ccggagaggc agggctgtgg 180  
 gggcaagaac ggtagtgggc cctcatgggc gattagctta ntgagcttac ccgcccggan 240  
 cgggggagcg ctagaggtan ttgggtagag aagccanctn ggggctacgn nngaccata 300  
 tnnaccccca ggcggaccan atgtgnaang cgcggcgncg ta 342

<210> 802  
 <211> 345  
 <212> DNA  
 <213> Homo sapiens

<400> 802  
 ggagagggag gtgccatgcc acaggccctc acctggggct ctgtggctcc aggtggctgt 60  
 gacaggggtg ctggtagtca cactcctggt ggtgctgtac cgccggcgctc tgcactagt 120  
 aagccctggg ctcttcccac caccatctg ttccgttcct gcagtaacc tggccctct 180  
 ccgaagcccc ttgtcccttt cttggggatt gtggaggctg ggtcagaggg gagttaagg 240  
 actgcaggcc tggcagcagg acatgccttg gctgaaccaa gtccctgagag cagcatctct 300  
 gtccccacgg tgccttgtgt ggtccccgt ccttggcttt ctggg 345

<210> 803  
 <211> 418  
 <212> DNA  
 <213> Homo sapiens

<400> 803  
 gaaagggagg caaaaaaagg ggaaataata agagaaaaaa aagaacaaaa aaagaaaaag 60  
 tcctactgct ctgcctgttt ttaataactga caccaccataa acaaactctgt ccctgggata 120  
 tgatacagag gcctggagcc tgtgacctcc tttctgaatc tatcaggaga cacagccac 180  
 accaaaacac caggagtgtt gcttctgcca aatatccttt actaacttca aagaaagaac 240  
 ggggaaagag ctgtaataat gcttaacacg aaatactgcc tttctgcttc ctttcctttc 300  
 cccatagact gaatgaactg tcattataag acaacatact gctgagttaa tgtaacttaa 360  
 aaatttacag caggttgtat gcctggaggc acattatggg gcccctgtag gcatctaa 418

<210> 804  
 <211> 416  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(416)  
 <223> n = A,T,C or G

<400> 804  
 gtgatatgct tgtcaaagtg ctgggattac aggtgtgagc cactaggccc agcctcagtt 60  
 tcttttatgg actcacttac ctctgcagat tggtccaaat gtcattattc tcaggcttct 120  
 ctctgttta cagggtgcct gggccatcca gtccagtctc atgatatttg ccacccaatg 180  
 tgctcatggt tcccaaacca gcattctctt tctagaccca tctcttaatt agctgtttct 240  
 caagcaacct tttgactgtt gtttcttttt acttccctgg taccagggat aaaagtcccc 300  
 tgaattcaaa catgaatatt cacctcaccg agtctctctg gaggtccata agtccctgtt 360  
 ttgggaagaa tgaagctgag ctctagctaa aaaaaaacia nnanatttgg ggatct 416



<210> 805  
 <211> 410  
 <212> DNA  
 <213> Homo sapiens

```
<400> 805
gtggcgctgt gtttccgtgc tgtggagttg cctggtcgcg ttcctccccg cgaataagaa      60
taaaagattc tggaggagtt ggagaagagt gtattcagcc cccaaaccac gagatcaaca      120
aatttaggtcc acaaagatgt gagcaccagt ttgggtggtg gcaccacttg aattttccca      180
tacttaaagc tgactcacta gaagtcttgg gacaagtcac cgaattctat aatgaaatgc      240
acaattttga ggaagaatta acttgtccca tatgttatag tatttttgaa gatcctcgtg      300
tactgccatg ctctcatata tttttagtaa attgtttgga aaacattctt caggcatctg      360
gtaactttta tatatggaga cctttacgaa ttccactcaa gtgcctaat      410
```

<210> 806  
 <211> 408  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(408)  
 <223> n = A,T,C or G

```
<400> 806
atttccctgt gcttaaacc cttccttgtt ctttctttca tgtggetggc gttcagggcc      60
atttacaatc tcacacaaac tgcccttcca gctccacctt ctgattcttg ccaccatgag      120
cagcttctgt gtttttttgt tttttttgtg tgtgtttttt tgtttttttt tttacaaact      180
tccctttgaa aatgctgtac ttgttcacct ccctgtgcct ttacacatac cattctttct      240
gtctgaacat acctgttgac cctttaatac cactgtaaat aaatgttgcc tcttctctca      300
agcctttcag tccctatacc attaccgttt tgtacatata acgtgctagg tgtgctccca      360
cgtgagattg taaacttctt gaggacaagn ctgggtttta ttgatttt      408
```

<210> 807  
 <211> 408  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(408)  
 <223> n = A,T,C or G

```
<400> 807
acctttttata gatgtaatga aatcccagat gttacagcta aaatgttttc tgaatagact      60
taatttaggt gtgtatctac tttataagta tattataagg atcatatttc ggatattcct      120
tcctttccag attaccttat attctgggtc tctcttcccc ttcacattca ttgcctgttt      180
tcaatgtggg ggttgggggg atactaaaat atcaaggaaat gggagccaaa aatcaaacta      240
aagcttttct gtatctaaat ttttctggat atgttttttag atgcaagata ctgtttactt      300
gaatccgtaa ataaaaatgg ctgtgttttg atagaaactt acacaaatgt attgattggt      360
gaaaattcag cagggtattc atttaatacc tattcatttt gncatatg      408
```

<210> 808  
 <211> 399  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(399)  
 <223> n = A,T,C or G

<400> 808  
 atttttagtga ctatgatcca gtttatcccc aaatgcaaga agtcagtttt tcagttataa 60  
 atgcttttcaa tcatttccag caaaccttgc tcagccaatt cttttacagg tgaagtaatc 120  
 ccaagaacat tctgttgctt attcattcaa caaacctggg gcactctactg tgtgccaaaca 180  
 tttgtgtgat actcctggga gtcaagatgt gatcctggcc ttgaagctat tcttaaattgc 240  
 tttgactctt gagagctagt ggtgttttag ccacttactt tttctgtacc ctttttttct 300  
 tcactttgat tttttcattt ttctacctgt atgaactcca ggtacttggt agcttttctgt 360  
 ttttaaaan ttgcatcttt cctgatgnnt ctttagctt 399

<210> 809  
 <211> 395  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(395)  
 <223> n = A,T,C or G

<400> 809  
 ggaaggagaa aataggaaat gaaaggatta ggacttgggc atttatatta atacaaaatg 60  
 gtgtaaacgg cctgaatatc actgtagtag tatcatcagg gggaaagtgt gatggaaaat 120  
 aggtttaaaa atcttaattt ttaaaacttt agtaagcttt atttatattt tttaggattt 180  
 tctgaacata gcatgaaggg ttttagattca tttttctgaa aaacgattaa aaaaactacc 240  
 aatttttttt ttgagngccc acacttgccg ttgngctgta tacntgattt taccttaatc 300  
 ctctataagg gagngctaa ttgctccatt ttatanatga ggaaaggctc aaanaaatc 360  
 anaaacttgg ctaatttaac acagctgnac agagc 395

<210> 810  
 <211> 418  
 <212> DNA  
 <213> Homo sapiens

<400> 810  
 gacaccatgt acagggactc cagatgcccc aggagaggt aaaatgctcg aaagagagga 60  
 acatcactac ctggcgggca ggtggggaca ggcttgccac ggatggtctg gggatgggat 120  
 aactctctgg ctcccactct gagaagcagg aggtgatctg gccacaagcc ctcaagacgt 180  
 gttgagtttg ggaatacctc actgctaggg aataccagga attatgcaat tcaactgtctt 240  
 ctttttaaaa ttctgtatgg gagaagctaa aaagtgaagt tgggggggtt tagtatattt 300  
 catttgcatt ggtttactct tctcgttcct tgattatctg agaggaggct gctgttacgg 360  
 aaaagcgaac accaggagtg gtttgaatat tcttccttga gacttttgac tgtttcta 418

<210> 811  
 <211> 389  
 <212> DNA  
 <213> Homo sapiens

<400> 811  
 gcaggctctca aactcctgag ctccagagat tggccgcct tgacctcca aagtgctggg 60  
 attacaggta tgagccactg tacctggcac accaatactt tcttgccac tttctctcct 120  
 gttcattcca ttttgattt tatgtgattc ttaggttata atcagttttg agaggttgta 180

catttactca	tctttgtata	tcacccccag	catcctacac	actgtagatg	cacaaatatt	240
tttctgacaa	cttaaccctc	tgaaggacag	catatacttt	tggaggggtg	gggaaacact	300
gggtaaaaaa	aataaatttg	catttaatat	agtgtactca	tcattccaca	gaatttcaca	360
acacactttg	aagtacagaa	aatttatag				389

<210> 812  
 <211> 410  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(410)  
 <223> n = A,T,C or G

<400> 812						
gtctttccct	ctctcctgtg	tttgcccttc	tgtcctgccc	ctgcgcaccc	ctccctgtgc	60
ccaccctggt	tctgtcgcc	gcggctcttg	gggggtgctc	attctcccgc	cttcccttct	120
cctgcacctg	gtcctgcctg	ctttctcgct	gtctgcccc	ggaggtaggt	acacgacctg	180
tttttgtctc	ccatcactag	acgaggggag	ggggctgccc	tggcgccctg	gcgcctgggc	240
ctcctgcccc	caggaggagg	gggctggggg	ctcaggctcc	tgggctggga	ctgacagact	300
cagaaaaatg	ggagcccca	gctgggggtg	gacgattctg	gaccccaaca	tgccctggcct	360
gcttgtctgt	ctccccaacg	caacggcttt	gtctaagccc	caagancccc		410

<210> 813  
 <211> 386  
 <212> DNA  
 <213> Homo sapiens

<400> 813						
cccttatagt	aagtttggtt	aaacaaagta	cagttaatat	tactaaataa	ataacaagga	60
aataagaact	gagtagtaac	ttaatgtttt	gatttaagac	taatttttaa	gcatgcaatg	120
tgtttgccgt	ggcagcacat	gtactaaaa	gtgtgcaata	taatggctta	ttttcatggg	180
accatgctta	actagctgta	ttattaaaca	actccatgtt	tctgaggggc	tcccaactct	240
ttacttccat	tttgattgaa	tttgttttca	gaagttgaag	aatctgccat	tgagaagcac	300
tttctggact	gtggaagtat	catggccgtg	aggattgtga	gagacaaaat	gacaggcatc	360
ggcaaagggt	ttggctatgt	gctcct				386

<210> 814  
 <211> 386  
 <212> DNA  
 <213> Homo sapiens

<400> 814						
atcagaagag	gtcagttaaa	tattcaccca	ggccctgggg	gctctcttac	agctgttctg	60
gcagatattg	aagtaatatg	gtctcatgcg	atacaaaaat	acttggaat	ccactgaaa	120
gatttaaagt	attatagatg	tatcttggtta	attcctgata	tctataataa	gcagcatgtg	180
aaagaactag	tgaatatgat	actaatgaag	atgggttttt	cagggattgt	gggccatcag	240
gagtctgtgt	gtgccaccta	tggaagtggc	taaagcagca	cgtgtattgt	agacgttggg	300
gaccagaaga	caagtgtatg	ctgtgtggag	gatgggggtg	ctcatcgga	tactcggcct	360
tgtctggcat	acggaggatc	tgatgt				386

<210> 815  
 <211> 402  
 <212> DNA  
 <213> Homo sapiens

<400> 815  
ctcatgtttc ttatgtctca cctcttttcca gagccaaatc agccccctttt ggaatgatga 60  
cttcatttga atgcaaatac agtcattttg gtgcatcagt ggctcttagg cctgcacaca 120  
cgagacatca gaatacaatc ctctgaccct gtgccagccc tttccccagc tttatttccc 180  
accaaaggct gacctctaag aggtcttgct ttctatgaac tcaagatggg tcccacctct 240  
aggtgtcccc aggtgcactc ttctaccggt tggcttccga tgtgacaagg ccaagggccc 300  
aaagacttga ccctcttaca cccttgctga catgggttcca tcatgtccac ccgcatgcac 360  
ttttatgggt tcatacccca gcctcttctc tctggccacc ca 402

<210> 816

<211> 402

<212> DNA

<213> Homo sapiens

<400> 816  
tggaggattc ggccctcggcc tcgctgtctt ctgcagccgc tactggaacc tccacctcga 60  
ctccagcggc cccgacagca cggagcagc tggataaaga acagggttaga aaggcagtgg 120  
acgctctctt gacgcattgc aagtccagga aaaacaatta tgggttgctt ttgaatgaga 180  
atgaaagttt atttttaatg gtggtattat ggaaaattcc aagtaaagaa ctgaggggtca 240  
gattgacctt gcctcatagt attcgatcag attcagaaga tatctgttta tttacgaagg 300  
atgaacccaa ttcaactcct gaaaagacag aacagtttta tagaaagctt ttaaacaagc 360  
atggaattaa aaccgtttct cagattatct ccctccaaac tc 402

<210> 817

<211> 377

<212> DNA

<213> Homo sapiens

<400> 817  
gcttggtgtg gaccaggagg gggcagaagg caccctgtcg tggctgggca ccgtcttcgg 60  
cgtgctggct agcctctgtg tctcgctcaa cgccatctac accacgaagg tgctcccggc 120  
ggtggacggc agcatctggc gcctgacttt ctacaacaac gtcaacgcct gcctcctctt 180  
cctgccccctg ctctgtctgc tcggggagct tcaggccctg cgtgactttg cccagctggg 240  
cagtgcccac ttctggggga tgatgacgct gggcggcctg tttggctttg ccctcggcta 300  
cgtgacagga ctgcagatca agttcaccag tccgctgacc cacaatgtgt cgggcacggc 360  
aaaggctgtg ccaaaat 377

<210> 818

<211> 373

<212> DNA

<213> Homo sapiens

<400> 818  
ggaaagtcac cataacttcc ttactcagt ttctgtcttc ttccagtcag ggatctagta 60  
gcttgactat tcttcattgg ttccctttca tttacaggct acccaacaag acaaaccaca 120  
caggtaatct cttctgatcc ctgccatcgc caagagtcac ttctgcccct catcactttc 180  
taaattctat ccaattccca gaatatccat gctccttctc actgtccctc attcacataa 240  
tgctaaaac actattcctg ctctttgcct gatgagccct tactcacttg tcaagactca 300  
gatcaaattg tcaagactca gatcaaattg tcacctcttc tgggagggtt tcctcaacct 360  
ctctaagtgg agt 373

<210> 819

<211> 374

<212> DNA

<213> Homo sapiens

```

<400> 819
gtgggggagtg tggttctagt actgtcacaa acttgccata taacttgaaa taagtctctt      60
tacatattta tgccacagct tccctctgtc aaatggattg tttgggtgtt tttttagact      120
gtctgcctca gggatccggg tacctcaagg gcttctaaga aggaaaaaat tagtgggatt      180
ctggtcctcc aactagaagc agccccgtgt tttgtctgtt ttttagacaa accactatct      240
tagatggggg agcagtgtgt tctgagttcc ttaggatttc tccatgatta aaatgagtgt      300
ggtttttgatt agtatctcct tatcaattaa ccagttattt tgattatttt atttttacca      360
ggtttggaga aaat                                         374

```

<210> 820

<211> 398

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(398)

<223> n = A,T,C or G

```

<400> 820
tggaaggctg cggtcgctg gtcgctgctg tccccaccgt cggcgcgggg cgcggagggg      60
gcgaagaggt gcctgccagt cgcactgcgg tctaggggtg aaaggaaaag ggtccatgta      120
aaggagaaag ggcaggcaga gactcttgct ggtgccagca ggcacggaag gatgtggccg      180
cggggacttg gagtttagag ggcaacgctg ggtgtcataa tgccggagat gaccccggt      240
gcagaggcga ttccagttgg gtagagctac agagaacgtg gcccagagaag gggagcttcc      300
ttaaattaga catatcctgt gttgtcctaa acctagcatt taccctctcc caccctgctc      360
ccacaacctn cagggtccta ncggagtcac ttaagccc                                         398

```

<210> 821

<211> 389

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(389)

<223> n = A,T,C or G

```

<400> 821
cagggttttg ctgttaccca gattggagtg cagtggcatg atcatggctc gctgcaacct      60
ccaactcctg ggctcatgcg attctcccac ctcagcctaa gtagctgaga ttacaggcac      120
acgccaccat gtcgggcaa cctttttaat ctattttttg tagagatgan gctntnctgn      180
gtgactcant ctgggnatan tctocctnnn taaagtganc cttnaaaatt gnanaacaat      240
tccagtcgtc anccccana ntttangntn nttttnngcc ccnncccccc cccccnana      300
ttttttntt tttaanaaaa aacaggggga nccaannatg gggccnnnag nnnngctana      360
nacaccgncc ngngnaaaaa nccccctt                                         389

```

<210> 822

<211> 384

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(384)

<223> n = A,T,C or G

<400> 822  
gctgattgct tttctgtcgc taaaacctat caggtctgca acatgacttt ctagtagaga 60  
ttttccagtt gggccttcaa agcggcaaga tgctttgcag acactaagaa ataataccag 120  
ggaatgcctt cataagtatt accataaaca caagcttccc attttccagt tcaaggaagg 180  
acacagagat agaattattg tgagtgccca gcaattacaa ctaggaccag aggtgtgtgc 240  
caaatcctac ccctaatttc atttacttgg tgtagtaaaa gttaagagtg ggatgttaat 300  
attaagcttc tggtttgtct atttagcctt tggcttangn atggtgtgaa agtctatttc 360  
tgcaaatgng ataaaaatgg cttt 384

<210> 823

<211> 363

<212> DNA

<213> Homo sapiens

<400> 823  
gcggaattgg ccacatttcc agtgtatgtg ccctctctaa ggaaagatga caaagaaatc 60  
accgacttct tactgtgttc actgggattt gcctgccact tgggttatcat tactgttggg 120  
tgaacccgtg aagataacat gaacactgta gccctctaga aggtgtcat agagaattta 180  
aacagggtga caaggaatct tcacaggaag ggccagaact tctctctccc agttcttctc 240  
tccgctaccc tccctccttg gcttttttgg ttcagttcca ttttttttcc attttgacat 300  
gtgggttacc taataagttt tgttctgttc ataattctta tttctcaacc tgggtgattt 360  
ttt 363

<210> 824

<211> 363

<212> DNA

<213> Homo sapiens

<400> 824  
gggacccttc tggatgacct cttctctgag gcgcccattc cgtgctccca gggagcactc 60  
ccatctcctc cctcccaggg gaagtaacaca ttgccattatcc tccatgtgtc ttaggatcct 120  
tcttgtcctt acactgggtg cttcaaacga catgtcctaa aagtaaagtgt gggtaagttg 180  
aatgacctga gcattccattc ctcagctatt caaaaagtag gggtagtgcc acctatcttg 240  
gcagtgtgtt gagggtgccc agcacgtacc ttgccatccc tcgttctgta ggctctcact 300  
tccagttcct cagatgaagt acagggcagg gaggagcttc tccggtactg gcattcttaag 360  
cta 363

<210> 825

<211> 362

<212> DNA

<213> Homo sapiens

<400> 825  
aaaacgggct ggggaccact actcagagga cctccttctt tgctcccttc ctccctccc 60  
cgccaggagc ctgtgtggcc tacttcctta ctaagaggcg tgagtaccgc aactccctga 120  
acccttttaa aggcctgaag gaaaaagagg agaagaaact tcgaagtgcg cgatatcggc 180  
tttttgccaa ccgatccagt atcatgaggc attttggacc tgaggaccaa cgtctgtgga 240  
atgatgtgac agaggaactg atgtcagatg aagaggacag tcttaacgag ccagggtgtg 300  
gggtggccgc ctccccgttt cgggcccagg gctcacaac tctgctacca cctggatgtt 360  
ac 362

<210> 826

<211> 361

<212> DNA

<213> Homo sapiens

<400> 826  
attcaagacg caagagagcc tgggtgtgtga agcggttggca gtagttcagc ctggctagag 60  
agtacaaggg gagaggggat gtactgggaa tggtaaacag aggccagata ataaaggggc 120  
tgtcttctct gtctcaaaga tagaactctc tctgaatgta ttatagtagt gaaccctatt 180  
tttagtagag gcagcgatgt catcgatttg gcgtttcaga aagttgcctt aggctgtgat 240  
gtggaaaatg gatttgggga gagcaaaact aaagtcagga aactgctaag ataatccaat 300  
tcagtggatt cagtaatat taaatatattg attcaaatat tcagttagta tcttctgtat 360  
g 361

<210> 827  
<211> 384  
<212> DNA  
<213> Homo sapiens

<400> 827  
ggagagaaga cactcttgat gtggagggtt ctgccagtgg ctacacaaag gaaatgcagg 60  
cagatgatga actgcttcat ccattagggtc cagatgataa aaatattgaa acaaaaggag 120  
gatctgaatt ctcatcttca gatggagaag tggcagaaaa agcagagggt tacagggtcag 180  
aaaatgaaag tgaacggaac tgtctagaag aatcagaggg ctgctattgc agatcatctg 240  
gagaccctga acaaataaag gaagacagtt tatcagaaga gagtgtctgat gcacggagtt 300  
ttgaaatgac tgaattcaat caagcttttag aagaaataaa agggcagggt gttgaaaaca 360  
actctgtaac tgaattttct gagg 384

<210> 828  
<211> 343  
<212> DNA  
<213> Homo sapiens

<400> 828  
atataacatg ggaaccaatg ttatctttta tgttgcttgt tctgggtgaac agagaatctt 60  
aagagctggt agaaagtagc acttgatgca agggatgttt tgaaaagaaa aaattggtaa 120  
tgcgaatgta tagaaagtaa aggtaggatg ctcaggtttt ctgcatagtt cttactaat 180  
cttgtctgca gtttgggtatt gataatatta gcatggccac ttatgctaaa tacacaataa 240  
gatacattta gaaatcctta atgtactggg taggtcagtg gtacaactgt ttgacttaat 300  
tatcacaatt tccccaatgg taaccttacc ttggaaacta tca 343

<210> 829  
<211> 345  
<212> DNA  
<213> Homo sapiens

<400> 829  
gttcaaaacc atcaaaaaat agtgatagca aggacatgag gaggcacctg ggggtgctgc 60  
tgttttctat tattcatctg tggaatgggc acatgggtat atatatattg tgaaaatttt 120  
atcttgctat atactcaact atttgtacac tttaatacat gtacgtttta tacttcaaat 180  
taagcattta cttacaatgt cagagacttt gatttttgta taacagaaca aaaagtatac 240  
agaatgaagt gtgtttctgt tttttgttgg aatttaaatt cttattttgc tcttcgtggt 300  
tgccccctta aattttctcc tttatagtc ctctgggtgat aatat 345

<210> 830  
<211> 340  
<212> DNA  
<213> Homo sapiens

<400> 830  
aatgagata acaagagtgc tttacttcat ttgattttgg ggaagatgaa ataatttatg 60

ccaagagctt	atagcatagt	gcttggcaca	gagtactgtt	caatactgat	gtttaatcaa	120
tgctgctgct	atcattatta	tttttggaaa	aaagggaaac	aaatatggaa	cttaaatagt	180
tcataagggc	atagcctcta	gcagcctcta	cattccagggt	agggggcagt	gaaaaagagc	240
aggtggaggt	caggagttca	agaccagcct	ggccaatatg	gtgataccct	gtctctacta	300
aaaatacaaa	aattagttgg	gcgtgggtgg	gggtgcctat			340

<210> 831  
 <211> 418  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(418)  
 <223> n = A,T,C or G

<400> 831						
gggggacggg	tcgggacacc	agtgaaactt	gaaccgggaa	gtgggaggac	gtagagcaga	60
gaagagaaca	tttttaaaag	gaaggggatta	aagaggggtg	gaaatctatg	gtttttatatt	120
taaaaaagaa	aaaggaaaaa	aaaaaagtca	ntancaaaaa	nccagctca	anaaccntt	180
ntacnccaaa	ctggaangga	naananaagca	ccaggaanat	tccanaancg	gggggccccca	240
gtttttgaaa	aacttttatga	actttttcaaa	nattatttttc	ntatggcanc	aagtgatacg	300
gaaaactgct	gtcaggggacn	cctgatntgg	aaatcaaata	nattttttant	taattganca	360
taanatttag	ggattttttcc	anancctcgaa	agggtcaaca	gccctccana	atgtcggc	418

<210> 832  
 <211> 421  
 <212> DNA  
 <213> Homo sapiens

<400> 832						
gttaatcttc	acactagcct	ttcaaagtgg	ttactgtatt	tctgatgaga	aaatgaagcc	60
ttgttcagta	actctagaat	cacttagctg	ataagtggtc	aatctgggat	tcaaattccat	120
atctatttgg	cttgaaaagt	tgggtgttct	tgctactaaa	tttggggaatg	agcaggcaaa	180
aagaaacaca	tggaaggaat	catctcgttt	gagggattca	gtactctctt	agcagtagacg	240
tgtgttaagg	aaggggattt	gagtttggtt	gtcctgttgg	tgtttggttag	ttgccacttt	300
atcctgtccc	actatgattt	gtatgcacag	gaggaaaaac	aaaataggaa	ataatctttg	360
gaactcttta	tggacattat	catgaacaat	tagaagaaat	ggcaatgtag	cttctgacat	420
t						421

<210> 833  
 <211> 417  
 <212> DNA  
 <213> Homo sapiens

<400> 833						
gtgagcccag	gaatttgagg	ctgcagtgag	ctacagtcac	accgctgcac	tccagccttg	60
gtgacagagt	gagacccttg	tctctgaaga	aaagaagaaa	agatttttatg	aaaacgtcta	120
attagaatca	agaaaagtcaa	tttcagacag	gaaggaacca	ggagcaggaa	aagtacagga	180
tttatgtaag	ctgtttacac	tttggtttta	ttgtggtttg	gggttggtcat	gagacagaag	240
gaaaacagaa	gttgaatccg	gatggagagt	tatgaaagcc	aaggggtggg	ctttatttgg	300
taagcagtgg	agagccatgg	aagggttttta	atgcggaaga	taggagattg	attcattcat	360
aagagcactc	tggaatgcca	tgtgggatga	atatgagtga	ggcaagacag	aagacat	417

<210> 834  
 <211> 396



<212> DNA  
<213> Homo sapiens

<400> 834  
aacagaagaa agcaatctta atatgttcac aagaggaaaa cagaaagata ttcaaagaac 60  
tgatgaagaa acaactgata atcaagaagg cagtgtggag tcatctgaag aggggtgaaga 120  
ccaagaacat gaagatgatg gtgaagatga agatgatgaa gatgatgatg atgatgacga 180  
cgatgatgat gatgatgatg atgaagatga tgaagatgaa gaagatggag aagaagagaa 240  
tcagaagcga tattatctta gacagagaaa agctactggt tactatcagg ctccattgga 300  
aaaacctcgt caccagagaa agcccaacat attttatagt ggccagcttc tcctgcaaga 360  
ccaagatccg attatcttcc gcaggaccaa gaagtc 396

<210> 835  
<211> 388  
<212> DNA  
<213> Homo sapiens

<400> 835  
gtggaactat aaaaatctgt tcttatataa ggtaatcttt gtgaaaatac ctggtaatat 60  
ctacatcacc actaaaaaat gcaatatatt taaatgtgaa ttaagtattt tagtgtataa 120  
aacattgcta gtttctactt aaagtttcta aaaggggtgt taggggaaat agaattgagta 180  
tggtgaaaag taacataagg aaatatatct tgaggtccaa atgacaaatg cagacaatga 240  
ctgctatagg gatttggttaa gaggggaaat gatttaagag atgtcagaag acttcacaaa 300  
ggatcaatac tgaggagtag tgtagataa gtggaaggca atgcagtggg aagatagtaa 360  
gggaattcta gagctgggtg gtaccata 388

<210> 836  
<211> 397  
<212> DNA  
<213> Homo sapiens

<400> 836  
gtaactatta aaaatatatt gcctggaaaa ggaatactac tgttttgttt tgttaagacc 60  
acaaactgta ttgctaagga cattttaaga gtctgcttag ccataacact catttaacag 120  
catgggtagt aagcatgggt tcttgcagaa aacacaaagt tctcagctaa cacattaaac 180  
ttctcacttt atatactttt ttccagagaa atttatcttt agtttttctt attctgtgaa 240  
aatatttggt cttatgtcaa agaattattt ttcagatata ttggtaaaga tggactgata 300  
ttaaagtc tatttattct tttacccctt tactgtgttt tgtgattttc atttttggcc 360  
caattattac ataacagggt ttctgatta tatttac 397

<210> 837  
<211> 382  
<212> DNA  
<213> Homo sapiens

<400> 837  
gttttgggct gatttttaag tgtacttatg tattttattt taaaaaggta cagatagtgt 60  
taagtttttt cttttgatta ttcccaacag ctaatttgta ttagagataa ttttcttctc 120  
taattaacct attttatttt aaataggggc tgataaaaat gaacttcaat ttaatcatat 180  
cttcattagt tggttgtttt tactgagaaa tcgtagggct cttgaatact ataaattttg 240  
aggtcaccc cgtggatatat atcagaaagg aagaaacaag ttatcatttg gtacactatc 300  
ttcattttgt gtaaaaacaa aagccttata aagataagga cttgttggat tatttatttg 360  
ttaaccaat attaattgaa tg 382

<210> 838  
<211> 384

<212> DNA  
<213> Homo sapiens

<400> 838  
gaaagactttt ggaaggaggg tgtggtccag cagatttcgg cttcctccca gcccatcagt 60  
gactccttct tctgctcct ccttttcctc tccacttcta tcccagttca attcctcaga 120  
tccaaccaga gccagctgtc aatgaaatac cttctgcctt tcttttctat tacagtgtgg 180  
gttagactct gtcaggtagg aaactactcc ccataatcaa actcattatg tttgtgatct 240  
cagcatattt gcaaacttag acatagacca gacaataaca tttaccttct ccattttctcc 300  
cattctggga tttttagcca aggtaataat aacaataata atacagtatt tagaaggcct 360  
ctagcaatat ttcattctct gaga 384

<210> 839  
<211> 382  
<212> DNA  
<213> Homo sapiens

<400> 839  
agtggtcagt aatggccggg cgtggtggct cagccttgg cctcccaaag tgctgggatg 60  
ttttcaacct ctatttgtct atactctact acagtatcga cttgtgttag ctttttaaaa 120  
tcccctgct acctttaatg tgtaaactgt tggctttaga ggaaagatca tgccagcaag 180  
aacagattcc acacttagga gggcagaaca aatgatgacc tgatcattag tacaatatat 240  
attcattttg agctgaaaat ttttttaaat agcccccata ttattgatag cttcattaga 300  
attgttttta caaatgtttc atttatcagt ttaagaaaga tcttttgata gcttttatca 360  
tatggacctg tggagaatct ct 382

<210> 840  
<211> 409  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(409)  
<223> n = A,T,C or G

<400> 840  
ggaattccaa ataaagtagg agttagaatt gttacaatca gtgaccccaa caatgctggc 60  
tgcagcgcaa caatggttgc tgtgccagca ggagcagatc caagcactgt agctaaagta 120  
gcaatagaaa gtgctgttca gcaaaagcaa cagcatccac caacatatgt acagaatgtg 180  
gtcccgcaga acactcctat gccaccttca ccagctgtac aagtgcaggg ccagcctaac 240  
agttctcagc cttctccatt cagtggatcc agtcagcctg gagatccaat gagaaaacct 300  
ggacagaact tcatgtgtct gtggcagtct tgtaaaaagt ggtttcagac accctcacag 360  
gttttctacc atgcagcaac tgacatggag gaaaagatgt atatncagg 409

<210> 841  
<211> 381  
<212> DNA  
<213> Homo sapiens

<400> 841  
agaaatatag taaacataaa tttgcaacaa ttttaagct ccagttttta ggtgactcaa 60  
agaaagtcat tatgcctatt aatagttatt tgatgccatc accaaaagtc tatgtgaaaa 120  
tctcctaaag tcaaaacccc tgcctttggg tttacagacg gttattacca ttgggtggag 180  
ctgcaagggtc aaatttctcc taagtctccc tatttagagg aaaagtcact ggttattgta 240  
ataaaccacc catggttctt tatgtacatt ttgataacac attattatag cttgattttta 300

atTTTTtgcA ttaatttttg aaatccacat acatctcatt tgttttaaatt aaggccatgc 360  
 acaaataattt tttttagttc a 381

<210> 842  
 <211> 354  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(354)  
 <223> n = A,T,C or G

<400> 842  
 gaaaaatgag taggagatga ctgagagctt aaagtttggg agtgtcaatt aactcagcat 60  
 tcttttaaaa aacgtgtcat atattacagc attttctttt atttgaagtg agtaaattgta 120  
 tctttttaaa ttccttagta atttttgagc actccatatt tataaagcat gtgaatattt 180  
 ggtagcattt tacaaatgtc cagagatttg tgagagttcc tgagatcttc atagggggcc 240  
 cacaaagttt agtattactt ttcacggtaa tactaaagtg tattttgcct ctttttactt 300  
 tttctcttaa tagcatacag tggtaaactga aggctaatag tatgngnggt tatg 354

<210> 843  
 <211> 386  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(386)  
 <223> n = A,T,C or G

<400> 843  
 ggagcttgcc tttggctttc caggtggctc cgtgcagcta cagccaggcc ggctgcctca 60  
 tctcagctct agggggcacg agccatatgg ggtctgcaca agagaccctc tcccctgcag 120  
 taaagccagg ggccctggcc tgatggggcc cccatgggga gctggagcct gccctgcagc 180  
 ctggagaaga ggggtggctgt ggtgggcgtg ctcacccctt gctaaggagc aggagctgct 240  
 gggccaggctc tgcggcagtg ctgggggtggc accaggtggg cagtggtagg tgggggtggct 300  
 tgaggtctgg gagggngggc ctggccancc aggacacatg cananccctg ctttagtctg 360  
 gatacaggct tccttttttc ttccaa 386

<210> 844  
 <211> 360  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(360)  
 <223> n = A,T,C or G

<400> 844  
 cccaaatctg tagattttta aggtaaaacc gacttaagct aaacttctct gaagagaatt 60  
 agtacttggt ttggaggtag ggagtgggat agagaactta aatgagaact aaacagtgcc 120  
 agacctcatg ctgtcttctt gattttcttt tctgctttct gcttttgtgt ttgcttttgg 180  
 tgtgtgatgg attactgatt ttttttcttt ttgttttagat tggatatagt ggtttttttt 240  
 tgcttttttt tttttnaaan ggnngtnnnn nttttttnc cggngngngn gnnnaaggggc 300

ccttttaant tnnrtggaacc ntngcccccc cggntcnagg gaatcncnc cncncccccc 360

<210> 845

<211> 340

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(340)

<223> n = A,T,C or G

<400> 845

ggtcaggctg	gtctcaaact	cctgacctca	ggcgatcagc	ccgcctcggc	ctcccagagt	60
gctgggatta	caggcgtgag	ccaccatgcc	tggcctaagt	ttggccaact	tttaaacttt	120
gttttctctt	atgagtttta	tttaatcatg	aatttctgag	aattgctatg	agagactgct	180
tagagtttgt	ttagggaaaa	caaaatatga	ataggagtat	aaacttacca	ttcttattta	240
tgtcatgtaa	ataatgntgg	ntgntcttct	cgaggctatt	tagttcagtg	aattagaaca	300
tagtgcccag	caaaaagccc	aangnctcag	ctttgatcct			340

<210> 846

<211> 344

<212> DNA

<213> Homo sapiens

<400> 846

gatcaacatt	cctgatatgt	tgaaattata	tggcttgaaa	tgatcaacat	ctcctttgct	60
tctgtctctg	agcagtccta	aatcccgtta	attcctgctt	agaattcctc	agatcaccct	120
ctcctttccg	tctcctctgc	caaccctcaa	tcacgcttat	tacctctcgc	tggcatgtct	180
gaaccctcct	ggctttccct	cttctaaaca	agtcagccac	atttaacttt	ctgatacaat	240
attttaagaa	catcatgttt	taaatatatt	caactataat	ttgtcaattt	ctaattttta	300
aaataaaaaat	tgaaagagca	tcattttttt	cctcagaaac	cttc		344

<210> 847

<211> 417

<212> DNA

<213> Homo sapiens

<400> 847

gaaaaaatgg	atggttacat	ctctactaaa	tatgtgcagt	cctttttattt	gtcattattc	60
tctaaacaat	acagtataac	aactattgac	atagcattta	tattgtatgt	attaggtatt	120
gtaagtaatt	tagagatgat	ttaaagtatt	ttacataagg	gacttgagca	ttcctagatt	180
ttggtaactg	cagaggggtcc	tggaaccaac	cccctacaga	tatcaaggga	ccactataca	240
cattaggatg	atctatattg	aaatctacat	ggaacagagt	gggacttcta	attgtatgac	300
ttcaagattt	tgctttgttt	aaattaataa	ctgttttcag	aattaagtgc	ttaaaaacaa	360
atttgattga	aaagttcaag	acaagaattt	tgctctctat	ggctgttcca	tataaat	417

<210> 848

<211> 397

<212> DNA

<213> Homo sapiens

<400> 848

atcctaggtc	cctggtagct	gccaggtatc	tctagcccag	atctttctct	tgccccagac	60
cccaactgcc	taggggcagc	ctcacagtgg	ctgctatagc	aaactaccac	gtacttacgg	120
ccttaagcgg	cacaagttta	tcttatgggt	ctggagggtca	gagggtccaaa	atgtctctcc	180

ctggtctaca	aatcaggtgt	cagcaagctg	gttcctcccg	gaagacctag	aagagaatcc	240
gtgtcttgcc	ttttgcatct	tctagaggct	gcctgcattc	tttaactcat	ggccccctccc	300
tccatcttca	ggcccacaga	tgagcatctt	cccatctctc	tgactgattc	tctgtctccc	360
tcttacaaaa	actctagtga	ctacactggg	ccacctg			397

<210> 849  
 <211> 410  
 <212> DNA  
 <213> Homo sapiens

<400> 849	
cctgagtggg	60
atacacaaag	
caattgagga	
acaacctagg	
accttgtagt	
ccattaggat	120
ttccaaaaat	
agaaagagaa	
tggaaagtca	
cctggctagg	
agaagccagt	
ggaaacttga	180
cacgaagaaa	
aaagagcagc	
taatttcatt	
cctgtccacc	
agttatttat	
gtgtttatct	240
ttaattacat	
ttgtttgatt	
tcccttatta	
aagtctgatg	
tctataaaaa	
agcagaaaag	300
tgaggcaggt	
cagcagggga	
tgtaagttgg	
gaagaaagac	
aggtgagggc	
aagaatttag	360
gcaggagcca	
cagtgttggt	
tgtgcaggtg	
aaggtcaggt	
gacgagggtg	
accagtcatg	410
gatgaccag	
gcaggagcca	
taaccaaaat	
gttagaaaaa	
gttggtgaaga	

<210> 850  
 <211> 386  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(386)  
 <223> n = A,T,C or G

<400> 850	
gagaatgggg	60
aagaaaatta	
ttttattgat	
accaacagcc	
aggattctta	
caaggaaaaa	120
gatgaagcca	
atgaggaaag	
tgaagaagag	
aaatctgttg	
aagaatcaca	
ctgaatcatc	180
aaggtctcct	
ctctatgccc	
ttgctgttgt	
ttgcagcgtc	
aggggtgtcag	
cagccgcatt	240
tgtgtttaga	
acatctgtgg	
ggacgcttct	
gatatgtgca	
gggctgttga	
tcaaagtcac	300
ctgtagcctg	
aaaagcctga	
atccagctga	
ttgggtcattt	
gatcagttag	
agtaaggctt	360
tgcctattca	
gttttaaaaa	
tcatttgtga	
ttatctgnnt	
gcaactatga	
ttttgtattt	386
ttaaaaagtg	
agaccacagc	
tgtccc	

<210> 851  
 <211> 382  
 <212> DNA  
 <213> Homo sapiens

<400> 851	
agcaaaggct	60
ccttgtctgg	
ggcgggatag	
agaatctcgc	
ctctgtctgg	
tgtgttacct	120
actgggggca	
caggaacaat	
ttcctcaagg	
agacagtggc	
atggagcttt	
gaaagacgag	180
taggtgttag	
caaggaaata	
aggaggaacg	
gggggttacgg	
gcagaggaga	
aagcacatgc	240
caagtcagca	
aagaaaagta	
gaattcgaaa	
acttttttaa	
aatattacta	
aggattttca	300
caatgctgca	
ctgggctaga	
aactgaagct	
aaaacagata	
cgtggtcctt	
gctgctatgg	360
ggcttccgtt	
ctagaggcaa	
ggacaggttg	
tgatgagggg	
tctgaaggat	
agagaccaag	382
cagggagggt	
gttgaggagg	
ct	

<210> 852  
 <211> 351  
 <212> DNA  
 <213> Homo sapiens

<400> 852  
gatctccgag acctgtctga actggaagag aagctaaaga aatgtaacat gaatacacaa 60  
ttgccaacac tcctgatagc tgaatgtgtg ctggtttaca tgactccaga gcagtcgcga 120  
aacctcctga agtgggcagc caacagtgtt gagagagcca tgttcataaa ctacgaacag 180  
gtgaacatgg gtgatcggtt tgggcagatc atgattgaaa acctgcggag acgccagtgt 240  
gacctggcgg gagtggagac ctgcaagtca ttagagtcac agaaagaacg gctcctgtcg 300  
aatgggtggg aaacagcatc ggccgtcgac atgatggagt tgtacaacag g 351

<210> 853  
<211> 345  
<212> DNA  
<213> Homo sapiens

<400> 853  
ctgaaaggaa atgtgccaaa atattagcaa tttttttttt ctgagtgatg agctttcttg 60  
tgataatttt tatttacttt atggatttta ctcccttcca attacttata taatagacat 120  
ataatagtat tttttaagaa aagtgttatt tttataataa ggaaaagtac catttaaaaa 180  
ccttttagtg ctccatttg ccaattaaaa atcctctcta tgacattcaa ggttttggca 240  
atactgctac aatccttctg acctcaccct cttctctctc tgccttcaact ccaagaaaca 300  
gcagcagaac ggagttaccc actgtcacca aatacatttg ggctt 345

<210> 854  
<211> 377  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(377)  
<223> n = A,T,C or G

<400> 854  
gctggctact agtatatgta acaggactat tatagattaa caaaaatgcg gggagtatat 60  
ttcttgatta ttttttaaaa gaataaatta ttatttataa atacatgaat tatttattga 120  
ttcttgaatc tttaccagct ttctataatt ctaggaagcc tataagcaga nttgggcagg 180  
atnnactggc anaaaatgta aaaagtaggc cnggcacggn gggctacagt ggtcgtgaa 240  
tgccagtgac acctgagtga tagatcaaga tccgtgtcnt ttanacnant nnnaacnann 300  
tananannga ngnantccnc cccgtgacng aaancnaann atnttttttn nggntttaac 360  
nngaagnngg gtngttc 377

<210> 855  
<211> 350  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(350)  
<223> n = A,T,C or G

<400> 855  
gtattttgag ttgaaacgtt gatgggagat gcttataagc tgacgaattt tttttgtaat 60  
gactgttatt tatgtaaaaa tttaaaagcc tcatttataa atgaccttcc attaatattg 120  
tcctcgatag caataatctt tgcaatagtt tgaaccagtg tcattttaca ggtagaacc 180  
cggcatgcaa atttaaagtc ttgtttacat ccttgtaagg agttggatac aaagctgact 240  
aaaagccagg tctcttagct gtcactgctg ttccctttct ttaaaacgtt aatacctgat 300

agatattgtt gctgtatatt tacatacacc tctgctaatt tgntgnctta 350

<210> 856

<211> 355

<212> DNA

<213> Homo sapiens

<400> 856

aacaatttaa	atgaaggctc	aaaggatgag	agacatcagc	catatgaaga	ggtgtaggca	60
gaacattcta	ggcaggggga	gctgtaagta	ggcaactaaa	gtgccagcac	cattaaataa	120
aatactgctt	atgtggagga	gaaaagctca	aaactcattt	gttgtaaaaa	gttgacaagc	180
attcaagaat	aatgggtgaga	atagcctgct	taatagcatt	attccatatg	cagggtgatg	240
ccgccttacc	tttggacatc	ctaacctatg	aagagaagac	cttgtcagcc	atcttgagaa	300
tatgtagcag	tggtcttgca	aattgtggag	ctctttgacc	ctggtaggat	cctat	355

<210> 857

<211> 377

<212> DNA

<213> Homo sapiens

<400> 857

tactgatagt	aagtttaaaa	tgtagaaatt	gaccagtaga	tttattgtac	tgaggatgat	60
tctgtagttt	aggagacatg	actagaattt	caatgagaac	agattgtaag	gacagaaata	120
aataaataaa	aagaatttct	aaatgatatt	gttaaatgca	ataacaactt	tatgtaaact	180
acagatgaac	tgataataga	gcacatgtaa	gaaaatgtct	aaaaaatgtt	attggaaata	240
aaattagagc	tgtaaactcat	taacaaggaa	aaaacattaa	cttatataca	atattttttt	300
tccatatttc	ttaaaatata	ttaaattcta	acatagaaaa	ccacttaaga	gattttaaaga	360
ttcccatcta	ctcagat					377

<210> 858

<211> 337

<212> DNA

<213> Homo sapiens

<400> 858

gaaagttcac	atgtagttga	gtgtgctttt	taaactctgg	gcctttgcac	aggctattca	60
ttctaccagc	cacacacctc	tctccaactc	ctaactcata	cttcaagttt	cagtttgga	120
gccccctctg	tttttgagga	tggcatcttg	ctctgttgcc	caggctagag	tgacgtgacg	180
tgacttcagc	tcactgcagc	ctctgcctcc	tgggttccag	caattcgctt	gcctcagttt	240
cctgggtagc	tgggattata	ggtgcattgc	accataccca	gctaattttt	gtattttttag	300
tagtgacagc	gtttcaccat	gttggtccag	ctggtct			337

<210> 859

<211> 350

<212> DNA

<213> Homo sapiens

<400> 859

aattaaaggc	gtgagccacc	acacccggcc	aattttttgta	tttttggtag	agatgggggtt	60
tcaccatgtt	ggccaggetg	gtctcaaaca	cctgaccttg	tgatccgccc	acctcgccct	120
cccgaagtgc	tgggattaca	ggcatgagcc	accgcgcccc	gccattcttt	gagttttcat	180
caaccagtgg	atacagaagt	gtgctgcccc	ttttgcagat	tagagaattg	aggctagtaa	240
ataagtcggg	acttagttga	tgcctttgct	ctttgagttc	tgggctctgg	aggctttgga	300
ttcaaagccc	tgctgcacca	tttactcatc	atgtgacttt	gggaagggtga		350

<210> 860

<211> 341  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(341)  
 <223> n = A,T,C or G

<400> 860  
 ggaggctgag gcatgagggt tgcttgaacc tgggagatgg aggttgcagt gagccaagat 60  
 ggtgccatta cactccagcc tgggtgacag agcaagactc catctcaaaa aaaaaaanac 120  
 accaaagatn ttattaatcn ctgancnctn tttntntca attataagta attgaaaatt 180  
 ntaatcance tcctatttaa ttaattaana attgatttaa tgattnagtt naaaangtta 240  
 aattcntttt aaaanaaccc attacatggt aacncaaata gcangttttt attttatattt 300  
 attttganac aaagtntcnn tntgttgccc aggctggagt g 341

<210> 861  
 <211> 396  
 <212> DNA  
 <213> Homo sapiens

<400> 861  
 ttcagattag acttcctggt tatcttttat attccttgcatt tgatataatg cctgatcctt 60  
 caaagttcct tcacatatata tatgatcttc tttatgaaaa aaagtagatg ctttattctg 120  
 atatattcag tttccactt taggcaaaag tggattaata gaatgatgaa ttcaaagtag 180  
 atgaggaaaa tcaggcacag agaagtaaag gtaggtacag acccaaattc acacaagata 240  
 atgacatcac cagcgtttta gttgatcatc aaaggctggg ctggatttgt cttgctgtat 300  
 gtgtcaggaa atttatacct attacatttt ccattttctc aaaataagtc acatgattgt 360  
 aatgttttagc tgcaactttt ctctaataa atagtgt 396

<210> 862  
 <211> 390  
 <212> DNA  
 <213> Homo sapiens

<400> 862  
 gcaaaacctg tctggaagga gcataggaaa tggcttttagc taagtgcctg actccagtag 60  
 cttcttgctg ttgccacagt ttcattagtg ttgattctca atgttgctctg ctgatgttgc 120  
 taaagcagcc acacagtagc attacaaagc ctgtgggaat tttaatagca ctttcataaa 180  
 tatatttagt agtatatgta gaaatatgac ctatacagca ctggctatct attagattca 240  
 cctggggagc ttttaaagca cacatgctcg ggttctacct gcagcctact gaattagaat 300  
 ctctgggttg gatgaccatc tatattttta ataaaagctc cacaagttaa ttctgatgca 360  
 cagaagatag acgaaccatt actttaacat 390

<210> 863  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<400> 863  
 atcggctggt tgtgaaataa agaagaaaat ttgtgaaata aggaagattt gtgctgcaga 60  
 gttcttttagg gatacgggct gcagctgccc aggtgatgag cttgaagaac ctaggcccg 120  
 ctggcagagt ggagaggagc tgggagagac agctgctttt acgactcttt catgttctag 180  
 cagacgccag atgcgaggct tctccttaca gggaagggtt atgtttgatt tatcatacat 240  
 ttctggagtt tttgttttagt ttttgttaaa tgcaaagctc tgtgctggac attgtgagaa 300



acaggaagtt gaacgcccatt aaggagttta gaatagaagt ggaagaagtc agtaggtgcc 360  
caaatgctat ttgagggttg aataaagaat gggtagaggg g 401

<210> 864

<211> 371

<212> DNA

<213> Homo sapiens

<400> 864

gggcatccgg gcaccgccgg gccgggagggc aggaggcggg gtgtccgggc ctggccctgc 60  
ctttttttcc atgtggttct ctaaaccctct tgttcgtaaa aagacaaaaa aacaaaacaa 120  
caaaaaagcg aaattggaac aagtaaaagt caaatcgatt cagcaaatat ttacggtaca 180  
gcgagtttgc aggagcccct ccgtcggagc gagtaggcca gtggggaccg aagtgtctgag 240  
agctggccgg gtcgctggga ggggtccccg cccgggggtg gaagggacgg gagcctacag 300  
tgagtgatag aaacgtggag ttcttgatta ttttacacga aattttgaat tattaactt 360  
ctttttctta a 371

<210> 865

<211> 351

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(351)

<223> n = A,T,C or G

<400> 865

atttttttca aatgcacatg gtctattctc caggatagac catgtgttag caagtaaac 60  
aaacctaaat aaatttttaa ggattgaaat acataaagta tgttctctaa ctacagtaaa 120  
ataaaattag aaaccaatag cagaaggaaa tttgggaaat tcacaaataa gtgaaattta 180  
acctaccttc ccaaataacc aatggattaa agaaaaaaaa aagaaattag agagtaagtt 240  
tttgttggat tttgttttgt tgtttttgan acagggtctc actctgtccc tcaaactgga 300  
gngcaggggc anaatcatag ttcactgcag ccttgaacct cctgggctca g 351

<210> 866

<211> 406

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(406)

<223> n = A,T,C or G

<400> 866

ctgcacgtgt ggtgaggcct acagaagcgg ccttcagctg gaccttggtc tccccgccgg 60  
acttcgaggg tgatcatgcc gccctgttg ggggtgagcg ccgcgcggct gcagcatgcc 120  
tcacaggaag aaaaagccct ttatagagaa gaagaaagct gtgtcttttc acttgggtcca 180  
ccggagccaa cgagatcctt tancagcaga tgagagtgc cccagaggg ttctattgcc 240  
cacacacaaa atagacaatg aagaaaggcg agcagaacag aggaagtatg gagtgttctt 300  
tgatgacgac tatgactacc tgcagcacct gaaggaacca tctgggcctt cagagcttat 360  
tccctcaagt accttcagtg cacacaacag gagagaggag aaagat 406

<210> 867

<211> 358

<212> DNA  
<213> Homo sapiens

<400> 867  
ggcgcttgag gacaccctgc agctgtgccg ggctgcactg ggggccagtg aagcaggcgg 60  
gctcttgagc ttggacacgg ccttcgtgtg acgcagctga aaagcaacaa caaaaggggt 120  
tggttgcaac agccagtggt ggtacctctg gggagagagg acctcctctg acaaactggg 180  
ctggtaccca ccatgtgccg ggatccaccc tggcctcttt ttaccactg actccccaga 240  
acaacccttc caggcttctc ttgtcatctt tctctgcctg aggggaaact gaagctctga 300  
aatgcgatgt gatctgtacc aggtcaccca gctatgctgc aaaagtgggt tggccaag 358

<210> 868  
<211> 381  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(381)  
<223> n = A,T,C or G

<400> 868  
gccttaacct gggagtggcg agggagtgat gcatctgccg aaacgaggag ggtcactaca 60  
tctcatgtct catctccttg ctacgctcat cctagccatg ctggcctcct ggctgttcct 120  
caaccagcta gtggtgtccc ccatctcagg gcctttgcct ggatgctctt tcttgagatg 180  
cttggtctat ctgtcaaaac ttgtgttccc caccgcgctt ttatacactc cctattctat 240  
gtattcctta ccattttcag acatactgtg catcttattt tgtttcttga caggctagaa 300  
agcttcaaga gggnggggtt gggctcttat tcatctccat acatattact atgtactgac 360  
ttctgcctgc ctttttgccc t 381

<210> 869  
<211> 348  
<212> DNA  
<213> Homo sapiens

<400> 869  
ctagactcta tgattgacag ggtgaccagc tgtcccagtt tgccctgggg cacaggatta 60  
ttcgtgctga aaatgagaaa gtocctgggca acctgggatg aattggccac cttcactatt 120  
gatccaactt cccaaatgct ttgtctacat tgctggatc tggctcggag gaagccctgt 180  
gggaaaggct gtgagtgtgt tgccccaggt tccacaggac acttagagtt tgggggacac 240  
ctgccgtcaa cgcactgcaa caatctttag ggatgttaat tgttcctcag gaggcatacg 300  
taggaatcac atccacctta aacatgcccc cttatggcat ttgggctc 348

<210> 870  
<211> 395  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(395)  
<223> n = A,T,C or G

<400> 870  
gtcagaacag ttaaactactg cttttcctcc tcctcttatt ttatgataaa agcaaagtgt 60  
gccttctcag tatcattcga ttgctatttg agacttttaa attaaggtaa aggctgctgg 120

tgttggtacc	tgtggatttt	tctatactga	tgttttcggt	ttgccaatat	aatgagtatt	180
acattggcct	tggtgggacag	aaaggaggaa	gtttctgactt	ttcagggcta	ccttatttct	240
actaaggacc	cagagcaggc	ctgtccatgc	cattccttcg	cacagatgaa	actgagctgg	300
gactggaaaag	gacagccctt	gacctgggtt	ctgggtataa	tttgactttt	tgagactggg	360
agctaccatc	ttatgaatgg	ccatgggnca	tttaa			395

<210> 871  
 <211> 388  
 <212> DNA  
 <213> Homo sapiens

<400> 871						
ccttgcttct	ctctttcttt	ccttggtgtct	cttccttctc	ttttcttttt	ttttttaaca	60
tatagggtat	ttttttcttt	taacatatag	ggaattaacc	ttcattttgt	taatttccat	120
ttgttccctt	cttcattcat	gtcatctctg	ctattccttc	tccttccaaa	agggagggaa	180
accctatttt	tttttttcca	aaaccatggt	gggtctgctt	ccctcactcg	ggctccttga	240
cagtcttcta	aaaaagagaa	ggaggaaaaa	aagcagttcc	tgatgttaca	aatgaacaag	300
gatctcccag	gtaaccagct	ccccacacc	atttctgtta	ctaatttctc	aaacagaaat	360
ttctggttcc	ccttcttctt	tatcactg				388

<210> 872  
 <211> 396  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(396)  
 <223> n = A,T,C or G

<400> 872						
gcgaggaaga	aatggaggat	gagcaagaaa	gcgaggccga	agaagacaac	caagaagaag	60
gggaatccga	ggcggaggga	gaaactgagg	cagaaagtga	atttgacca	gaaatagaaa	120
tggaagcaga	gagagtggcc	aagaggaaat	gtccggacca	tgggcttgat	ttgagtacct	180
attgccagga	agataggcag	ctcatctgtg	tcctgtgtcc	agtcattggg	gtcaccagg	240
gccaccaact	ctccacccta	gacgaagcct	ttgaagaatt	aagaagcaaa	gactcaggtg	300
gactgaaggc	cgctatgatc	gaattggtgg	aaagggtgaa	gttcaagagc	tcagacccta	360
nagtaactcg	ggaccaaattg	aagatgttta	tacagg			396

<210> 873  
 <211> 347  
 <212> DNA  
 <213> Homo sapiens

<400> 873						
ggaactttga	cagtgaata	aatatcagaa	atgaaaactt	taataaatga	aattaacagc	60
tgattagatg	tgtagaagaa	aaacagctgt	ataacataga	aatagaaaaag	acccaaacta	120
aaacacaagg	aggaaaaaag	agcttcagtg	acctgtggaa	cagtatcagg	cagtgtgaca	180
taacctagaa	gtcccagaag	aggaggagaa	gaagggtgta	agaaaaaaa	tatttgaaga	240
aacaatggca	ggcaatgcc	gaaaatactt	caaagtgtgt	aagagcaata	aaccacaaat	300
ttgaagatgc	ttaataaaaac	tcaagaaaga	taaagaaaaac	catattg		347

<210> 874  
 <211> 350  
 <212> DNA  
 <213> Homo sapiens

<400> 874  
ggaactttga cagtgaata aatatcagaa atgaaaactt taataaatga aattaacagc 60  
tgattatatg tgtagaagaa aaacagctgt ataacataca aatagaaaag acccaacta 120  
aaacacatgg aggaaaaaag agcttcagtg acctgtggaa cagtatcagg cagtgtgaca 180  
taacctagaa gtcccagaag aggaggagaa gaagggtgtga agaaaaaaa tatttgaaga 240  
aacaatggca ggcaatgcc aaaaatactt caaatgtggt aagagcaata aaccacaat 300  
ttgaagatgc ttaataaaac tcaagaaaga taaagaaaac catattgagg 350

<210> 875  
<211> 398  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(398)  
<223> n = A,T,C or G

<400> 875  
gaaggaagca atgggttcagg cagaggaagc ggctgctgag attactagga agctggagaa 60  
acaggagaag aaacgcttaa agaaggaaaa gaaacggctg gctgcacttg ccctcgcgtc 120  
ttcagaaaac agcagtagta ctccagagga gtgtgaggag acgagtgaag aacccaaaaa 180  
gaagaaaaag caaaagcccc aggagggttc taggagaaat ggaatggaag acccatctat 240  
ctcttttctcc aaaccaaga aaaagaaatc tttttccaag gaggagtga tgagtgcga 300  
tcttgaagag accgctggca gcaccagtat tccaagagg aagaagtcta cacccaagga 360  
ggaaacagtt aatgacctg aggaggcang ccacagaa 398

<210> 876  
<211> 369  
<212> DNA  
<213> Homo sapiens

<400> 876  
gtttttatgt gtgaactctg cgagttcagg agccatgtca gtcaccattg taccctgtg 60  
cctgggtggtt aacaaatatt gatcaacaaa ctggaggata taattatcat tactccattt 120  
ttcagatgaa gaaacagaaa ctccagagca ctaaacattt gcccaaatga ctccaactgt 180  
aggtgtcaga caaaagaaaa gaaaaggact tttaggtact ttgggggatt ttcaacaagg 240  
catttttttt taaactatag ccccaaagaa gggaaacaaa ctggtaaatt cggttctagt 300  
tatgccccac tttgaccggg ggtgggggtct ggaagcaggc ttttgtgcc tggtgcaaag 360  
cacctaattg 369

<210> 877  
<211> 386  
<212> DNA  
<213> Homo sapiens

<400> 877  
gctgctccga gataagcata cccttcaaaa aactctcact gctttgggct tggatcgcaa 60  
gccagagacc atccagctca tcacccggga catggtccga gaactcattg ttcccacaga 120  
ggatccctcc ggggagtccc taatcatcag ccctgaggag tttgagcgaa tcaaatgggc 180  
atcccattgt ctgaccagag aagaacttga ggccaggag caggccttca agaaggagaa 240  
ggaagccacc atggatgcag tgatgacacg aaagaagatc atgaaacaga aggagatggt 300  
gtggaacaac aacaagaagc tcagtgcact ggaggagggt gcccaaggaaac gggcccagaa 360  
cctcctgcag agagccaaca agctgc 386

<210> 878

<211> 345  
 <212> DNA  
 <213> Homo sapiens

<400> 878  
 ctttttaaaag gatttagtag attatgtcat ttctctattc ctgttctccc tatagtaggc 60  
 ttccctatgtg ttacatttag aataattttc agtgtcctta ccatgggtcta caaagaacct 120  
 tccaagtttc tgcaactcac tgtagggtgat acgtgtttga gactcaacac atgcacacac 180  
 acatctgatg caaaagtttc acaaaacagt actatcctta ttgtatgaga tgtactctaa 240  
 tattcttctg tggattttta atgaaataaa atagaaaatc ctgttcttga tcttctaact 300  
 tgattttgct accaatgtgg agacatagtt taaaagaaca ctgcc 345

<210> 879  
 <211> 408  
 <212> DNA  
 <213> Homo sapiens

<400> 879  
 gggagcgggc tggggagaga gagagaggca taggcaaagg ccctgtggca tggatatgggc 60  
 agaaccaagg gagaagatca gtgtggctgg agagcagaga acagagttga aacaaggctg 120  
 gaaggtaggc cagtctggac caagcagcct tctttcaact atgtttccag tgtgtttggt 180  
 gaacaagggc ctcagaccac tcttaagtag tatgttacat tactccttta gtaggacatg 240  
 gcgccttgct tctgacaggg tctatgtaca ccctacaggt catctggaat ctcatcttct 300  
 cagaagaatc tctcttttca ttccagtcca atagtgcacg cccaaaagta tgtttgggaag 360  
 tttattcaaa agtcacgtgt tggcgggaca tgggtggctca cacctata 408

<210> 880  
 <211> 354  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1) ... (354)  
 <223> n = A,T,C or G

<400> 880  
 agttaagcag tctagttctt cggcctcata ctgtcactgt gggtttgtat acgtagaact 60  
 ttgttgtacc tttttaaaat aaaacctgaa gccttagata tgtaaattga ttcattttaa 120  
 cttactttct ttttttttct ggagacagag tcttactttg tcacccaagg ctggagtgtg 180  
 cagtgggtgtg atcttagctc attgtggcct caacctcctg ggcctcaagt atcctctcaa 240  
 ctcagcctcc cggtttagctg ggaccatagg tgtatgccac cacacccgcg taatttttaa 300  
 attttttcta gaggcagggt tttgccatat gccaggctg gnetcaaaact cctg 354

<210> 881  
 <211> 422  
 <212> DNA  
 <213> Homo sapiens

<400> 881  
 acggaagtgc cgagcccggc cccatacctt taccagctgc ttggccttgc acttaaccag 60  
 ctctcaaccc tcagttttct catcagcaaa ttgggtataa tatttatagc cctgcttcaa 120  
 agggttgttg gttctctcaa ataagatgat atatttaagt gacttacaag tcttattagc 180  
 cagtagcaac aaatcgctta cccaaagaag ttttacaggt tacatgtgtg agccagcccc 240  
 aggcattgtg tcacagtgtg tgtcagaggg cacagttgct tctctcagt caccaacaga 300  
 aatcatatgg aaattttcag agaccatga acagccaaag cattataaat gctttggtaa 360

catggatttt gcatataagc atttatgtat ttttttcctg acattagata cttacttcta 420  
ag 422

<210> 882  
<211> 373  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(373)  
<223> n = A,T,C or G

<400> 882  
gtttccaaga ggagggaggc atgccacacc atgcaggcca tgtggagaag cacaagggtt 60  
ggtcaggagg cagaagtagc aaggagaagc atgggtgaga gcctttttat atagtggagg 120  
gatgttcctt attggacaga aagtgaaata ccgatgttgg ggtttgtagt tggagggttt 180  
gtaatataat tnccaagncc ccacnccang acaggaatgg tgaggatgtg gacaactttg 240  
gctgttnttt tngtccatga tttcnagatg cnaanttttt tnntanaata tcangaagga 300  
ttattatatg cctgcacatg ttttggtat tatgnctcct angnganaaa ttgctntnnt 360  
ggaggaanna tta 373

<210> 883  
<211> 387  
<212> DNA  
<213> Homo sapiens

<400> 883  
gaagaattcg cggccgcgaa ttcttcagtg gattgccacc aagtccagtt cccagtccaa 60  
gacgattttc aagcaggaga agtcagagtc cagtcaagtg cattagaccc agtgttcttg 120  
gtcctcttaa aagaaaaggt gaaatggaga cagaaagtc gcccaagaga ctcttccaag 180  
gcactaccaa tatgttatct ccagatgccg cgcaactgtc tgatctcagt tcatgttcag 240  
atattttgga tggcagtagt agcagcagtg gcttatcctc agaccgcgtg gctaaaggca 300  
gcgctaccgc agagtctcca gtagcatgct ccaattcatg ctcttcggtc atcttgatgg 360  
atgatctctc acccaagtga ctttaacc 387

<210> 884  
<211> 396  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(396)  
<223> n = A,T,C or G

<400> 884  
ggatacgagc acaattcctc aactgcagct ccctatgggg gagctctcta atcatctgat 60  
ggcatggnnn nttanccgct tnacccttna nntgantcat nccttatgac atgactnctg 120  
ccattttatc tgagatcttt tatgtngcct ttgcngaata cnttnttgct gaccctcctn 180  
attgnctnta tgantngccn tgtgggaacc tatnntatgt tatnaagtna ctntgngnan 240  
agagncncng cnttatnnaa gattgccttt gactcattga cccatttggn ggaaaaagnt 300  
nancatattg cntggntaaa nnatnagctn ntncgnattt ttctgggccn cnaacaacna 360  
anaannnacn gtcgtttttc nttgncncn nggaaa 396

<210> 885

<211> 397  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(397)  
 <223> n = A,T,C or G

<400> 885  
 ggctgaaaga gttttgaggt gcatgctaga aaaagcctat ggtgctttga agggactctt 60  
 cgcagaaata taaatgctaa ggggtgattct agtgaggtct cagggtggaag tgaaaaacat 120  
 gttattagaa gctgaaggaa agacattctt ttcataaagt ggcaaagaat ttggatgaac 180  
 tatttgtttt ttattatttt ggagaagaga gaacatgttt tctagacgtg ttgataatct 240  
 ggccttattt ctcttttagt cttagagtaa aatgcaaaaag gagagagaga aactgaaaaa 300  
 tttcttggct ggggtgtgng gctcactctt gtactctcag gactttggga ggccaaggca 360  
 agatcgcttg aactcgggag tttgagacca cctgggc 397

<210> 886  
 <211> 404  
 <212> DNA  
 <213> Homo sapiens

<400> 886  
 cttgtggctg cggcctgccc ctcagcctcc tccgcgcggt tacccttgta cccgcgcgcca 60  
 tccgtcctgg cgctccgat gagtcaatga ggggcagggc ccgaggagtg gtcttcccaa 120  
 gaacccctgg tggcctccca aggcgcgtgc tgtgtacctc ctccccgaca aaaggggaaa 180  
 ctgaggcccc gaggggagtg ggaagagccg gctggacgtc agggccagcc gctggtgcag 240  
 tggtcctgcc cctctgccgg ggtgggcccc tgggttttcg cgtgtcctcg ggaaagagac 300  
 tggcgggtga gccgcgccct cggccttcgc tgggctaagc cgaccccatg cagacgtcaa 360  
 acccccctag gtcggcacag cctctctgcg gggaggctta atgg 404

<210> 887  
 <211> 357  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(357)  
 <223> n = A,T,C or G

<400> 887  
 ggagccctgg gtgggctcgg agattagggg ccccccatg atggtggtca tgatgcccc 60  
 acctccacct ccagtcctc cagcagtga gccctcgggg gccctccag tcagagacct 120  
 gggctctgtg ccccagaac tgacagccag ccgcaaaagc ttccacatgg ccatgggcaa 180  
 tcccagcgag ttctttgtgg atgttatgta gccactgtg gggccaggct gggccgggcg 240  
 ctctggtgt gtgactgggt gtcttgccg tcatgtgctt gctcttacag tgctgggct 300  
 cacctaccag ctgctgcata caggagattg tggccactgt gactatnacc aacaagg 357

<210> 888  
 <211> 392  
 <212> DNA  
 <213> Homo sapiens

<400> 888

ggaactgaga	agtgggtggt	tgggggagtg	gaagggagtt	tcccctgccc	tgtgcccaca	60
gtgcaatggg	caaactcctg	cctctggcac	ccccacctc	tcccacccag	gcccctggtc	120
agcaggctca	catgagtggc	ggtacagctt	gacactgttg	gtatatagga	actccagcac	180
tgccaggaag	gcctcagttg	gcacagtgct	tagcaccaca	ggactgggca	ccccggggcc	240
tggctctgtg	cccagaagtc	gctggaagaa	gttgcatcta	caggccaaca	agcaccgatg	300
ggcaaatacc	tcctgccgtt	cttgaccaac	cacgaagcaa	acatcactgt	gggagacagg	360
cagagaggca	gcggggagga	ggccaacacc	cg			392

<210> 889

<211> 409

<212> DNA

<213> Homo sapiens

<400> 889

gccggcctgg	tgatgaacac	cattcaacac	tggcctgtgt	ttgtggaggt	gaaagacctt	60
ttgacattgg	tgccgcccct	ggtgggctg	aaggggaacc	tggagatgac	actggcatcc	120
agactctcca	cagctgccaa	cactggacaa	attgatgacc	cccaggagca	gcacagagtc	180
atcagcagca	acctggccct	catccaggtg	caggccactg	tcgtggggct	cttggctgct	240
gtggctgcgc	tgctgttggg	cgtggtgtct	cgagaggaag	tggatgtcgc	caaggtggag	300
ttgctgtgtg	ccagcagtgt	cctcactgcc	ttccttgca	cctttgccct	gggggtgctg	360
atggctctgta	tagtgattgg	tgctcgaaag	ctcggggtca	acccaaaca		409

<210> 890

<211> 334

<212> DNA

<213> Homo sapiens

<400> 890

gtaccttcaa	aaggacacaa	tgtaacaggg	ttagggaaac	agaagtccgc	agggcctccc	60
taatgtcttt	ggagcttaaa	ccccttgat	atttgcccct	tttcaataaa	cgccccacgc	120
tgatagcaca	gaggagcccg	gcattgcactg	tatgggaaag	cagtccacct	tgttacagtt	180
ttaaattttct	tgctatctta	gcattcagat	accaatggct	tgctaaaaga	aaaaaagaaa	240
tgtaatgtct	ttttattctc	aggtcaatcg	ctcacacttt	gttttcagaa	tcattgggtt	300
atatattatt	gtttttttcag	tttttttttt	tttt			334

<210> 891

<211> 467

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(467)

<223> n = A,T,C or G

<400> 891

tctagaatac	aagtttncng	ctctntnatn	caggatccca	tcgattcnaa	ttncgcngct	60
gacggtacca	cacacttctt	gaaccctgat	actgtactta	atatatcact	gtcttccata	120
atactgccct	aggtcttttt	agtttttaag	agaccgggcc	tcgctatgct	tcccatgctg	180
aactcaaatg	cctgggctta	agcaatcctc	ccacctcagc	ctctggagta	gctgggacta	240
caggggcatg	caccaccagg	cctggcttcc	taggagggtc	tttaaagaga	aaacatttgt	300
tcaattgaaa	acaggattct	tgatcatctac	aactccaaca	cagcctgaaa	atatccacat	360
tataacctgg	accttagacc	tactttctcc	actatcctgc	aaagctacat	ctgtaactac	420
ctattgggcta	tctatatgag	tcctcaagca	tctcagactt	tacatga		467

<210> 892



<211> 407  
 <212> DNA  
 <213> Homo sapiens

<400> 892  
 attccagata aagggagtag ccagtgtaaa ggtcttaagt taggaacaag cttggtatat 60  
 taaagaataa gcaaggaagc cagtgtggtt gaggagagag caacagaaga tgagggtcgag 120  
 taagtaatat tgggtgccttg taggctctaa ttaggaattg ggcggtctga agtgggtggtt 180  
 caggcctgta atcccagcac ttctgggagg ccgaggtggg cggatcacga ggtcaagagt 240  
 tcgagaccag cctgaccaac atagtgaaac gccatctcta ctaaaaatac aaaaattaac 300  
 tgggcatagt ggtgcgtgcc tgtaatccca gctacttggg aggctggggc aggagaatcg 360  
 cttgaaccca ggaggcagat gctgcagtga gccgagaata cccactg 407

<210> 893  
 <211> 467  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(467)  
 <223> n = A,T,C or G

<400> 893  
 actctanaat acaagctact tgttcttttt gcaggatccc atcgattcgc tttgtgatgg 60  
 agtttcgctc ttgttgccca ggctggagtc caatggcatg atctcagatc acttgaaccc 120  
 aggaggtgga ggttggtggtg agccgagatc gtgccattgc actccagcct gggcaacaac 180  
 agtgaaactc cgtctcaaaa aaagaaaaaa aaaaagaaaa ngaaaggaaa ngaaaaaaag 240  
 atntggncct gtntgancca gngaaatttt tttgnggnta aaattnaaaa ttgcaagcca 300  
 ncanatacat acccaganac tgaacatttt cancaccanc gtaaagtcac gacanaaaaa 360  
 ancanaantt ttccacaaac tccctctgct gaggttcctg gaactgctgt tcccnaggng 420  
 nggtgttcaa agctactgga atttatgana ggctcagttt ttntcca 467

<210> 894  
 <211> 355  
 <212> DNA  
 <213> Homo sapiens

<400> 894  
 ggctcattga agactctgtg ggttaccag aagcccaact ttccagattc aatatttttt 60  
 ctattttctta gctgtgttac cttgggcaag ttaattaacc tctctgtgcc tgcattgtgc 120  
 atctgtaaat gagactaata ctagtaccba ccttctaaag tgattatgag cattaatatga 180  
 attagtacgt ttaaaggctt agaacagtgt tttatgatag gataaacact caataaaatg 240  
 ttagctattg atattgggtg gcccagaagg cttgttacta ctagttgatt tatgtgcttg 300  
 ccaaaagtgt ttgtgttggt aattaagtac gacataaact aatgaaaatt gagtt 355

<210> 895  
 <211> 378  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(378)  
 <223> n = A,T,C or G

<400> 895  
 gccagcagg cccagcatgc aggtggtggg acactgggca gcaaggctgc tgccggaatc 60  
 acttctccaa tcagtgtttg gtgtattatc attttgtgaa tttgggtagg ggggaggtgt 120  
 gggaggattt caatccantc tagagaanat ataanaaaan ctanccaggc ncantggctt 180  
 acacctgtta tcccancgct ttgggaggct aangcaggca gatcacttna naccancttg 240  
 ggcaacatgg caaagcccn tctctncaaa aaacacaaaa attanctggc attgtggcgc 300  
 acacctgtat tcccatctac tcangaagct gatatggaag aattntttna ccccnanttc 360  
 aaggctgnat tgattttt 378

<210> 896  
 <211> 386  
 <212> DNA  
 <213> Homo sapiens

<400> 896  
 ctttctcaag caggagctgg tattgtaggg agtggccggg tattctgggc tgggctcttc 60  
 tggagtaggg ggtcaagcaa acattgtctg caaagggcca gatactgaat ccagtacttt 120  
 cagtttggcg agccgtgagg tctctgtcga aactactcaa ctctgccgtc ctagcacaaa 180  
 agcagccata gacaacacac aaacgagagg gcttggtccc cttccaggaa gatttattta 240  
 acaggctccc agctgaattt cactcacagg acacagttta ctgatctctg ttctagttag 300  
 tgggcaaaaa gcatatgcat ccttatccgt caactcatca gctcttcttc aaggcaacct 360  
 gaggccagac accaagaaac caagcg 386

<210> 897  
 <211> 390  
 <212> DNA  
 <213> Homo sapiens

<400> 897  
 gagagaggcg ggactgggtc aagtgggtgg agctcctcct tgcattgactg caactgtcgg 60  
 ggctttccgc cggctcacag cagttggggc cagcggggag aagagaggcg gaactgctgt 120  
 gtccctcatgt ggcgcagcct caaactggca tccaggcact gggcccgtgc agagaaggca 180  
 cctgcagaga gcagggcagc ccggcgagg ggcattgcgc tagaatccca gctactcgga 240  
 aggccaaaggc agggaggaccg cttgagtcca gggattcaag gccaacctgg gcaatagagc 300  
 gagaccctgt ctcttaaaaa acgatgatga tgaacacaga ggacggggca ctgtgctggg 360  
 agccaggggg cctggggagga gccagacca 390

<210> 898  
 <211> 407  
 <212> DNA  
 <213> Homo sapiens

<400> 898  
 ggccagggcc acaggggcac gtggcgccgg gaggagagag aatgtctttt cgaggcggag 60  
 gtcgtggagg ctttaatcga agtgggtggag gtggcggtt caaccgaagc ggcagcatca 120  
 accacttccg atgtggaggc ggcggtggag gcggcgga tttcacaggc ggcggcaagg 180  
 gaggatttgg acgaaggggt ggccgaggag gctttaacaa aggccaaagc caaggacctc 240  
 cagaacgtgt agtcttatta ggagagttcc tgcattcctg tgaagatgac atagtgtgta 300  
 aatgtaccca tatgaaaata aggtgcctta tttcaatgct cctgtttact tagaaaacaa 360  
 agaacaaatt ggaaaagtgg atgaaatatt tggacaactc agagatt 407

<210> 899  
 <211> 344  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(344)  
 <223> n = A,T,C or G

<400> 899  
 tggggcttca ccatcttgac caggctgggc ttttaactcct gatggtgatc caccacctc 60  
 ggcctcccaa agtgctggga ttacaggcat gagctaccgt gcctggcccc ctttttttta 120  
 attacagaga aataagttac accttagtat cagatattaa ttttcttcag tggtcaggca 180  
 attagtatct agaaaactct tgtcatgaga tggctctggg atgtgatgat gattgttggg 240  
 attgaaaaaa tggtagtatc atggagagat cataataaat tcttagtatt aaaagtgggt 300  
 ttgctttcag ttagggagaa aaattagatt gtactatntt tccg 344

<210> 900  
 <211> 395  
 <212> DNA  
 <213> Homo sapiens

<400> 900  
 gtgatacaat attatattgg taatggaaat ggaagtatat tgttgtagtg tactacttat 60  
 ggtgttcatg aagtgggtata atattacttg aaggtagatt gtgtgttcaa aatgtatata 120  
 atgaaccata aagcaaccat taagaagaaa gcaggaggga atgaattggt aatatgccaa 180  
 ccaaggggat aaaatggaat cagttaatac aaaacaaggc ataaaatgag taaaaacaaa 240  
 gaacagatgg gataagtagg aaacaaaagaa taatatgggtc aatttcaatt caaacacatc 300  
 tatattttaca ttatcagcag tcacattaat gtaaaaggag taaatgtttc agttaaaga 360  
 cagattatca gatttaaaaa aagaggtaac tgctg 395

<210> 901  
 <211> 217  
 <212> DNA  
 <213> Homo sapiens

<400> 901  
 gaatacaagc tcttgttctt tttgcaggat cccatcgatt cgaattccgt tgtttgacgg 60  
 caacggactc tgcagagctt cataactggg aatttgattt gaagaagtcc atgtcatatg 120  
 tgtaactagt actaattata aatataaaat acacaatata aaatatgaaa ctcaataata 180  
 aacagtgcc aactgtacatg ggcaaaaaaa aaaaaaa 217

<210> 902  
 <211> 395  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(395)  
 <223> n = A,T,C or G

<400> 902  
 gagatcgagt ccttataaga aaaggaagga actagagcga ggtcactttg tgctgtgtga 60  
 gcatacaaga aaactgccat cttcaagctg ggtgcagtgg ctacgcctg taatcccagc 120  
 actggaaggc caaggcatta ggattgcatg agtccaggag ttcgagacca gcctaggcat 180  
 gataagacct tattgctaaa aaaaaaaaag ggaantaaan taaaaantng ccntntgcaa 240  
 angaaaaagc ntttagccga cnccaaactg ccagggcctt tgnntttgga ctttcagccc 300  
 ccaaantnng gaaaaattan tttntgtngt ttaaaacncc taccctgngg nttttgtnt 360  
 cgcaatccaa ctgctgaaca ggccgtangg aaaaa 395

<210> 903  
 <211> 414  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(414)  
 <223> n = A,T,C or G

<400> 903  
 cacaaggggtt tgtctacgaa tggtttagcg ccaggttccc cacgaacgtg cgctctcttc 60  
 agcagaacaa gagatttgtt ttgtgtggtg gtgagggatg gaatagagag ctgaagatga 120  
 gcaaaaggag ggaggagtca ggaaaaggca gtccttatat gttgaattta ttttccatta 180  
 gtactgagta tttaaagaag agggcaccca ggctggagcc ctgggaagtc ccatatgtgg 240  
 tgggtctggtg gagtgggttg aggaggtaat agaaggctcag aaagtaaaga tagtaaatat 300  
 agaccattct ttcaagaagt ttggctgtgg ggctggcatg gtggccatgc ctttaattcca 360  
 gtactttgcg aggcctaagt gggaggattg cttgacctaa gaatttgana caac 414

<210> 904  
 <211> 403  
 <212> DNA  
 <213> Homo sapiens

<400> 904  
 ggaaaactgt ggtgtgcaaa gaagaataaa aagaagagga aaaagggttt atataatgcc 60  
 aataaaaaatg atgattatga caacgaggag atcttaacct atgaggaaat gtcactttat 120  
 catcagccag caaataggaa gagacctatc atcttgattg gtccacagaa ctgtggccag 180  
 aatgaattgc gtcagaggct catgaacaaa gaaaaggacc gctttgcac tgcagttcct 240  
 catacaaccc ggagtaggcg agaccaagaa gttagccggtg gagattacca ctttgtttcg 300  
 cggcaagcat tcgaggcaga catagcagct ggaaaagttca ttgagcatgg tgaatttgag 360  
 aagaatttgt atggaactag catagattct gtcggcaagt gat 403

<210> 905  
 <211> 416  
 <212> DNA  
 <213> Homo sapiens

<400> 905  
 aacaactaac aaaatgaaaa ggaccagca agcctcactt gtggaatgaa aatggggcat 60  
 tcaggaaagc acctgtcctg gccccacagt atgtcagctg tataggcaat agtagtagct 120  
 gtctcttaga agggaaataa tgtatcacct cttccagaa cgaagcaaag ttgctggctt 180  
 agtagagccc tcaattcata gaggttactg taattgggcc tggctcactg atgctttcgc 240  
 caactgaaac tactaggatc ctgtgtgtgt tcaaactcag tgccattaac aaacccaaag 300  
 tgaagcggtc actcctctca gtggaaagag cacgaggatg ttctcagctc tggccaatac 360  
 tccatttcat aaaccatgtt acatttttgt taagccttgg ctctggatgt ggccta 416

<210> 906  
 <211> 413  
 <212> DNA  
 <213> Homo sapiens

<400> 906  
 ggctgtgtcc gcagcgccct gcgcccaccc gccccggacg tggggcccaa gccccgtga 60  
 agatggtgtc ctggatgac tccagagccg tgggtgtggt gtttggaatg ctttatcctg 120  
 catattattc atacaaagct gtgaaaacaa aaaacgtgaa ggaatatgtt cgatggatga 180

tgtactggat	tgTTTTtGct	ctctatactg	tgattgaaac	agtagccgat	caaacagttg	240
cttggtttcc	cctgtactat	gagctgaaga	ttgcttttgt	catatggctg	ctttctccct	300
ataccaaagg	agcaagttta	atatatagaa	aattccttca	tccacttctt	tcttcaaagg	360
aaagggagat	tgatgattat	attgtacaag	caaaggaacg	aggctatgaa	acc	413

<210> 907

<211> 400

<212> DNA

<213> Homo sapiens

<400> 907

accacttaaa	aggattctta	caacaaatta	aaatgaggag	ggagaactta	tttctcctat	60
agtaactgtg	cattaaaatt	ttatctcggt	tttatttatt	ttttaagat	agggctctac	120
tctctcacac	agggtagagg	gcagtggatg	atcatagctc	actgtaacct	caaactcctg	180
tgctcaagtg	atcctcccac	ctcagccacc	cgagtggctg	ggactatgca	cataggctac	240
cacatccatt	attataattg	aaaaaatatt	tctggccggg	cccagtggcg	catgcctgta	300
atcccagcac	tttgggaggc	cgaggcaggc	agatcaccta	aggtcaggag	ttcgagacta	360
gcctggccaa	catggcaaaa	ccccatctct	gctgaaaatc			400

<210> 908

<211> 496

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(496)

<223> n = A,T,C or G

<400> 908

gactatagaa	acaagctact	tgTtctTTTT	gcaggatccc	atcgattcga	attccgttgt	60
tgacttaggc	tggctctggg	agcttctgga	agctcccaag	ctttgtagct	catgccaaaca	120
gagcccaggg	acagaggcag	agccccagag	gggtgacacc	ccctctgagt	cccattcgct	180
ttgctgcccc	ggtgatagtt	ggcatctatt	ttggccttgt	ggcactgatt	agcctttctt	240
ccatgggtcaa	cttctatatt	gtggccctcc	cactggcagt	tggtttaggg	gtcttgctgg	300
tggctgctgt	tggcaaccag	acctcagact	ttaagaacac	tctgggggtca	gcatttctca	360
cttcacctat	cttctatggc	cgcccatagc	catactgccc	attagcgtgg	ccncatttac	420
agctcagagc	atcgccgcta	caaagctttg	gtggcatcag	agccgtcant	gngcgggtcta	480
tcgctggcct	gnttac					496

<210> 909

<211> 388

<212> DNA

<213> Homo sapiens

<400> 909

ggtacgagta	agttccctga	actcgaagct	ctctgcacag	gaaaggaagg	agctgottgc	60
tgacctggag	cgagaaaagc	cccagaccaa	gattctgtac	atcaccccag	agatggcagc	120
ttcactctcc	ttccagccca	ccctgaactc	cctgggtgtcc	cgccacctgc	tgtcttactt	180
ggtgggtggat	gaagctcatt	gtgtttccca	atgggggcat	gactttcgtc	ctgactactt	240
gcgtctgggt	gccctgcgct	cccgcctggg	acatgcccct	tgtgtggctc	tgaccgccac	300
agccacccca	caggtccaag	aggacgtgtt	tgctgcctgc	acctgaagaa	accaagtgca	360
tcttcaagac	tcttgctttc	gggcaact				388

<210> 910

<211> 387

<212> DNA  
 <213> Homo sapiens

<400> 910  
 ggggagaggt ggtgaagggt ttgcccactg caggggtcaa catgtgcttc cctccaggag 60  
 tctgcccgtgc acccgagggga gatttttcaag cagaaggaga gggccatgtc caccacctcc 120  
 atctccagtc ctcagcctgg tgagctctcc ctttgggcct ggccatgagg cagcagcagg 180  
 ctgaggggga gcctgggggtc ctatgtgggc tcccccaagg ctagtgcagc atatatcggt 240  
 gacgggtgag tgagtgcagg gaagggacac ctggggccat tgacctcatc agtgaccaca 300  
 ctggtcacca gtttggcctc caaaagatat tgggctgcgc tgtctaccac gtcaccacat 360  
 agcacatggc cctggggcct ctgttcc 387

<210> 911  
 <211> 368  
 <212> DNA  
 <213> Homo sapiens

<400> 911  
 atttggagaa agtttttagag agtggggctc aggctcaaga atacaatgaa gtaataaagt 60  
 tgtaaacctc atgtataaaa tcctccatcc agatgttgct tagtgatgca gctagtgtct 120  
 ctggagggaaa agaagcaaga accaaataat gaagactaca tcaatgggaa caagtgtac 180  
 ttttaggtgt tttgttctca gaatatTTTA aaagaaaggga aattaacaac agaagaaaaa 240  
 tatttcccta tatgaattaa tggTTTTAT aagaaaaata tctttctgga gatactaaga 300  
 ttgacctaga aattgatcca aggaccagat gcttaaagt cacttcaatt ggtcactaga 360  
 aagatcca 368

<210> 912  
 <211> 385  
 <212> DNA  
 <213> Homo sapiens

<400> 912  
 gaataactag acagaatatt tgtaaggaaa tagagggtc gaacaacata ataaattaac 60  
 tcgatctgtc agacatatac agaacactct acccaacaac agcagatgat acattcttct 120  
 cttctcaagt gtacatggaa catcctccag ataaactacg tgtttggcca caaaacaagt 180  
 cttaataaat tttcaaagat tgacatcatt acaaaatttc tgatcacaat gaagtgaac 240  
 ctcaaaccaa ggaaggataa ctataaaatc cacaaatatg tgaaaattta aaaactcact 300  
 ctacagcaac cattgggtca aagaagaaat cccaaggaaa attggcaaat accttgaaac 360  
 aaaaaaatac atcatacca aattt 385

<210> 913  
 <211> 485  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1) ... (485)  
 <223> n = A,T,C or G

<400> 913  
 tttgaantcn ataatacaag ttncctgtcc tttttgcagg atcccatcga ttcgaattcg 60  
 gcacgaggct ggaggcattc gaaagggact cccgatgtgg tgggcggggc tgaacctgt 120  
 ggcttctgag gtccctgccg gccagagact tgtgtgagtc tttgaatggc ttcacatgaa 180  
 caaaagagca tttctgtcac ctttctctta gttttttcca ccacaccac caggagctg 240  
 aggcaagggt gtttctgttg ctgtttcctt aggtcagctg aggtgttcca ttgatgccca 300

ggaccggggtt	ctgctgcttc	acagtgagta	cggctttgtg	caggctcacc	aaggaagggg	360
cgggccactc	agcagagcag	ggccacagaa	gagttttcct	atcttccttc	ccttctttat	420
tccatccttt	cttcttttct	ctatttttct	cactcattca	tttattcatt	ggttgacagg	480
cagca						485

<210> 914  
 <211> 405  
 <212> DNA  
 <213> Homo sapiens

<400> 914	
aaaaaattca	tactggagag aaaccctatg agaaccctaa ccctaacgct tcagttgtcc 60
cagttctttc	atgagcatga aaggagtcac atagagaaac cccatgaaag taagaaattt 120
gggaaagcct	tcagtccttt ctgtttcttt caactacgtg aaaggattca cagtggagaa 180
agaccctgta	agataattgg ctttaaatta cgagagactt gtgataggac agtaaaacct 240
agagttggag	ttggatctct ggatttgtgt atgtcagtggt ttgtaggtta ggaactagat 300
ttcccagaat	ccattccatt tgtgattcca tgatacaatt caccagtaac ctatcttaca 360
tgagattcgg	aagtaagtta aagaaggcat tagtcatggg ttgga 405

<210> 915  
 <211> 466  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1) ... (466)  
 <223> n = A,T,C or G

<400> 915	
tttgnnnccc	tttaatacaa gctacttggt ctttttgcag gatcccatcg attcgaattc 60
ggcacgagat	atagtccaga tgaggaaaat aaggctgaag gcaagctaaa cttgcctgaa 120
gccacattgc	taggaagtga cagaaccttg taaacaagat ttaagatttg atatactttc 180
ttatttttcta	aaaattttcaa tgtgcatgta gttctcagat gctttcctcg aagaaaaggg 240
agtgtcatct	atttatctga ccttgcaatt atgacatttc ttagaagttt ttttttttaa 300
ctgaccgtat	cttatgaaat ggtccttgca ttggtgtgtt gaaatgactt ttttgctgca 360
gtgtgccttg	ccctgataat tccttcttcc tactatgctt cagggtaatt atttctctta 420
ctcccactga	tactggggga aggagaggaa actccctgat gtgcct 466

<210> 916  
 <211> 418  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1) ... (418)  
 <223> n = A,T,C or G

<400> 916	
cccattctgct	tgtcgtttta aacctagaaa atagtggcta ttggctgggc atgatagctc 60
acgcctgtaa	tcccagcact tcggggggct gaggcaggtc tgtacaaaaa attcaaaaaa 120
attagctcag	tgtgggtggca cacacctgta gtcccagata ctcgaggaggc tgaagtggga 180
caatcacctg	agcctggcag tcaaggctac agtgaggcag gattgaacct ctgctctcca 240
gcttgggtga	cagagtaaga ctctgtctca gaaaaaaaaa aacaaaaaac aggggctatt 300
aatcttcccc	tcagttcttc ccatectcct cccctccccg gggctanaaa gccgaagctg 360

anattcaatc ccanaggcca gctggatttg ggagacctca aatgccaggt caggcata 418

<210> 917

<211> 390

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(390)

<223> n = A,T,C or G

<400> 917

gcagggacta	ctgggacaaa	aatcagatga	gcagcaagca	gcccacaagc	caaaccctgc	60
acacctgggc	agagttctca	ccgcaacata	aagcagagtc	cgaggagccg	ggcacctggt	120
ttcagtgagt	gagctctgtt	tcggttgacc	caggtcatgg	aatggaaacg	gtgaggccca	180
tttgcgtnat	ttcncaaaac	gacatanact	ggnanatgcc	catttgcant	cattccatag	240
ngaaatgtgt	gacaaanattg	ctctggagga	agattcanaa	agcgttnttg	aaatangaag	300
tgatgaggaa	tctnaaaatg	aaattacnng	tgttgggnana	ncttnngtga	tgactntnna	360
anngnanatn	atnanangnn	gatannataa				390

<210> 918

<211> 395

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(395)

<223> n = A,T,C or G

<400> 918

gatgagagcg	gcagagacta	tagggagagg	gaacgggaat	atgaacgaga	tcaggagcgc	60
atacttcgag	aaagagagag	gctgaagcgg	caagaagaag	agcgccgtag	gcagaaggag	120
cgctatgaga	aagagaagac	ttttaagaga	aaagaagaag	aatgaaaaa	agagaaagac	180
acacttcggg	ataaaggaaa	gaaggctgaa	agtacagaat	caataggcag	ctcataaaaa	240
actgaaaaga	aagaagaagt	ggtcaagaga	gatcgaataa	gaaacaagga	tcgtccagcg	300
atgcagcttt	accaaccagg	agctcgaagc	cgaaaatcgac	tctgtccccc	tgatgacagc	360
accaagtctg	gagattcanc	agcagaaagg	aagca			395

<210> 919

<211> 389

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(389)

<223> n = A,T,C or G

<400> 919

gcaagaccca	ccaggtgcc	gctgcccctg	ccccttgccc	atgccctgtg	tgtgggcggc	60
ccttggccaa	ccagggctcc	ctgcggaacc	atatgaggct	ccatacagga	gaaaagcctt	120
tcctgtgccc	gcactgtggc	cgggcgtttc	gtcagcgggg	caacctgctg	gggcattttgc	180
ggctccacac	gggggagcgt	ccttaccgct	gcccacactg	tgcn gatgcc	ttccccccagc	240
tgccctgaact	gcggcgccat	ctcatctcac	acaccggggg	ggcccacttg	tgcccgtgtg	300



tgccaaggcc	ctccgagacc	cacacacgct	ccgagctcac	gagcgctgc	actccggaaa	360
gaggcccttt	cctgtcccca	atgtggccg				389

<210> 920  
 <211> 411  
 <212> DNA  
 <213> Homo sapiens

<400> 920						
aggaattatt	tacacagccc	tgttgcagag	ttaaggagca	aacaagatgg	caaggcatcc	60
aattctagaa	atgataagac	agaaccatcc	ctagggatga	tgagacaagg	agcaggagtt	120
tccttaagag	cccagtgtaa	gcagaggcac	aggaggcgag	gatggaggga	cgtacagcct	180
gaaaggacac	tgccatggtc	caggcaaagg	gtcaaagcag	gaacagatga	agatgtatct	240
cctttaaaaa	caaacaaaca	aaaaaagaca	gtttccctct	gtcacccaag	ctggagtgca	300
atggtacaat	cttggctcac	tgcaacctcc	acctcccaag	ttcaagcgat	tctcctgcct	360
caacctcctg	aatagctagg	attacaggcg	tgcccagcta	atTTTTctat	t	411

<210> 921  
 <211> 396  
 <212> DNA  
 <213> Homo sapiens

<400> 921						
ggcttgggtg	ctcatgcctg	taatctcaac	actttgggag	gccaaaggta	gaagaacact	60
tgaggcctgg	agttaccagc	ctgggcaaca	tagcaagacc	ccatctctat	gaaaaaaaaa	120
taaataaata	gaaaagaaaag	aaatgcagaa	tcccagtcct	caccccagac	ctcctgagtc	180
agtctgcatt	agaataagct	cctcaggcaa	ttctcacatg	tgttgcagtt	tgagaatcct	240
ggaagcccac	catgcctcgt	gcctaattag	cagtcagtgt	ttgcatcatg	aacggacggc	300
ctttctctct	atttccattt	tgtgttacag	gcctgggtgg	taggagatga	agtttttgca	360
gatgtctgga	gaatatgtac	caacaacacg	aattgc			396

<210> 922  
 <211> 414  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(414)  
 <223> n = A,T,C or G

<400> 922						
gtttttgaac	attttcttga	aaatctggat	aaatcccgaa	aaggagaact	tcttaagaag	60
agtggttaaga	cgctatgcct	ttcccttcta	tctagttaga	tcttattatt	agtagaaatg	120
agcaatTTTT	gagttctagt	ctttctttgc	cctcctccca	aaatttacag	atttatctta	180
ctatccttaa	tgttttggaa	attgaggttc	cttaattcaa	tttaacacat	agttattaaa	240
cacattctaa	gtatcaggtc	tataaggagg	acaaagatga	attaacatca	tgccctccttg	300
cccttaagaa	gtactaactt	ggccaggcac	ggtggctcac	gcctgtaatc	ccagcacttt	360
gggagaccaa	ggcagttgga	tcacttgagg	tcaggagtcc	gagaccanct	ggcc	414

<210> 923  
 <211> 398  
 <212> DNA  
 <213> Homo sapiens

<220>

<221> misc\_feature  
 <222> (1)...(398)  
 <223> n = A,T,C or G

<400> 923  
 cctgtatggt cccattgtga aacatatttc attttttgat ttcttcaagc ataagtatca 60  
 aataaatatc gatggcactg tagcagctta tcgcctgcc aatttgctag ttggtgacag 120  
 tgttgtgctg aagcaggatt ccatctacta tgaacatttt tacaatgagc tgcagccctg 180  
 gaaacactac attccagtta agagcaacct gagcgatctg ctagaaaaac ttaaatgggc 240  
 gaaagatcac gatgaagagg ccaaaaagat agcaaaagca ggacaagaat ttgcaagaaa 300  
 taatctcatg ggcgatgaca tattctgtta ttatttcaaa cttttccagg aatatgccaa 360  
 ttacaagtg agtgagcccc caatccgaga nggcatga 398

<210> 924  
 <211> 389  
 <212> DNA  
 <213> Homo sapiens

<400> 924  
 gcaggctctt atactatctt gcacaggctg gtctegaact cctgggctca agcagtcac 60  
 ctgcctcagc cttccaaagc tcagggatta cagacatgag ccacagcacc aggccaacaa 120  
 tatttcttaa agtccttgga gtgattccaa tatgcagcca aggttgaaaa ctacccttta 180  
 aaaggctcgg catccagtgt ggaagaccag cactcacaca tccggagacc ttaccggag 240  
 ccaggctgcc cctgatcatc tctgataact ttaaaaggaa ggctcagaa gcagccccag 300  
 aagcaaaagt ttctctctga cttctcctg cctcttgtct ctggcttttc attctcccc 360  
 aaggctaccc atagaaacta gaatccctc 389

<210> 925  
 <211> 409  
 <212> DNA  
 <213> Homo sapiens

<400> 925  
 gcagaagtta gaccaccatt tacatatgca tctttaatta ggcaggccat tctcgaatct 60  
 ccagaaaagc agctaacact aaatgagatc tataactggt tcacacgaat gtttgcttac 120  
 ttccgacgca acgcggccac gtggaagaat gcagtgcgtc ataactcttag tcttcacaag 180  
 tgttttgtgc gagtagaaaa cgttaaaggg gcagtatgga cagtggatga agtagaatc 240  
 caaaaacgaa ggccacaaaa gatcagtggg aacccttccc ttattaaaaa catgcagagc 300  
 agccacgcct atgtcacacc tctcaatgca gctttacagg cttcaatggc tgagaatagt 360  
 atacctctat cactaccgct tccatgggaa atcccctctg ggcaactta 409

<210> 926  
 <211> 381  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(381)  
 <223> n = A,T,C or G

<400> 926  
 cttgacagct catgttggtg tagtcttggt tagattgaat cttttgacct tctggtaacct 60  
 gaagatttat gtttttcac agatttgcaa agttttatgc tattatctct ttaataaatc 120  
 ttctatccc tttgtcttcc tcttctcctc tatgaatttc tgcaactcaa acatttgctc 180  
 ttttcacagt ctcataaatc ctgtaagtgt tccttattac ttttcattct tttttctttt 240

tcctttctcta	gctgtatddd	cagacaacct	gtctgagttc	aaattctttc	ctctacatga	300
ttaattctga	tattgatgct	ctttgntgca	ttttttcatt	ttattcattg	natttttcag	360
ctccagaatt	tctgnttctt	t				381

<210> 927  
 <211> 167  
 <212> DNA  
 <213> Homo sapiens

<400> 927						
gaagaattcg	cggccgccta	cgtacaacc	ctaacataac	cattcttaat	ttaactattd	60
atattatcct	aactactacc	gcattcctcc	ccacactcat	cgcccttacc	acgtactcc	120
tacctatctc	ccctttttata	ctaataatct	tataaaaaaa	aaaaaaa		167

<210> 928  
 <211> 381  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(381)  
 <223> n = A,T,C or G

<400> 928						
ggagaacagg	agggcatgtc	cctttgggag	cccgccttgt	ggatccacca	caccccaccg	60
agcactagaa	gctgcataag	ctacacagga	tgtgcttctg	cagcctacag	atgcagaacc	120
agaatgaggg	ggacaattcc	accactcga	gggctgcccc	ctcttcctta	gcagacgaac	180
cagtaatggg	ggcaaggctg	gggcatccca	gccacacac	cctggatgcc	cagcaaggcc	240
acagaaagag	cctgatgtcc	atgatccagg	tggctctgag	aagcttggcc	tggacacctg	300
agcctgcggc	cggctactcct	gcttctcccc	atctatcccc	aaggcctctg	ctctcacctc	360
ttccatggnc	gggttaagct	g				381

<210> 929  
 <211> 419  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(419)  
 <223> n = A,T,C or G

<400> 929						
gcgcgagaat	ctgcaaagtc	aagccacttg	gggcacccag	tggggcacag	tgtggtggct	60
cctgggcaag	gcgggaaggt	ggtcagtgag	cagtatggaa	acagaggaag	gtcccaagtg	120
ataggacggc	ctgacttggc	acttgagtca	gatttgtctg	tgttccaatc	agcattgcc	180
cttcctgggt	tttacacctt	gaaacatttt	tttacttaa	ttcaacctta	gttttttatt	240
aactgtcaat	tgcattttta	cagtagagtt	tcaaaggtaa	gaaaatgttt	aagaggtgga	300
tttcagaaaa	gacattacat	atatagtcaa	atattcactt	gttaaaaatt	ctgatttacc	360
ttttttcttca	ctagagtata	gtaagtttgc	agcctgttcc	tttttaaggg	ngatttttaa	419

<210> 930  
 <211> 410  
 <212> DNA  
 <213> Homo sapiens

```

<400> 930
gttcttttaaa gaaagagggg gaagaaaaaa agcccaagtg aataaaacat tgaaactatt      60
ccccttcgaa aataaattct aaaatcgaca gcaacggaat tccgttgctg tcggggaaca      120
ggaaaagaaa ccccaaactc aggccgaatg atcaaggga cccataggaa atcttgtcca      180
gagacaagac ttcgggaagg tgtctggaca ttcagaacac caagacttga aggtgccttg      240
ctcaatggaa gaggccagga cagagctgac aaaattttgc tccccagtga aggccacagc      300
aaccttctgc ccatcctgtc tgttcatgga gagggtcctt gcctcacctc tgccattttg      360
ggttaggaga agtcaagttg ggagcctgaa atagtggttc ttggaaaaat      410

```

```

<210> 931
<211> 489
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(489)
<223> n = A,T,C or G

```

```

<400> 931
ttgaanccct tnnnnntttg aaacccttta atacaagcta cttgttcttt ttgcaggatc      60
ccatcgattc gaattcggca cgaggaaacta tctagtagct ggttccctcc gaagtttccc      120
tcaggatagc tgggacagca gctgctgctg tggaaaggcc agctggcaag atgatggaag      180
aaatctccat tatggtagcc tatgacgccc atgttttcag ccagctgcac gatgaagact      240
tcctcactag tctggtggcc atcagcaagc ccagggtctat ggtaccaacc aagaagctga      300
agaaatatga gaaagaatat cagacaatgc gagagagtca gctgcaacag gaagacccaa      360
tggatagata caagtttgta tattttagtg taactccagc tgttgcatth atactgggaa      420
tcttcataag aagctgagag aaagagaggg gaaaaagaaa gtggccttct actttcaaaa      480
atgaaacaa      489

```

```

<210> 932
<211> 416
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(416)
<223> n = A,T,C or G

```

```

<400> 932
tgctattttta ggtatatcaa gcacaagaac ccattataga gagtggggtt tttcattgta      60
tttctgagac tcctctctta gaatcatctc taccgcata tcgtgttttc ttttcttct      120
acaatttttag tacagaggaa aatcccaaga gagaagatta ttttggaatc acaaattctg      180
ttgaacatcc agcccagctc aatcctccag gtaatgtata gattcctgaa tcaagtctct      240
agagcagcat taccatttgg aaatttatac agtgaggaac atgttctgta tctatgctgt      300
tcaatacaat agccactacc catgtgtaat tctttttttt aattcagttt ttttcttgac      360
aatagtttgt tgtttgacca gtgaacatac attttaagtg catattcctg ngctta      416

```

```

<210> 933
<211> 354
<212> DNA
<213> Homo sapiens

```

```

<400> 933
ctgaggatgg accaggagtc aggcgccagg aagaacaaaa acacgatgac tatgtgtatg      60

```

acatttacta	cttggagacg	gccactccag	gctggattga	gaacatcctc	tccgtgcagc	120
cctacagcca	agaatgggag	ctggtgaatg	atgatcaaga	accagaggac	atttacgacg	180
atgaagatga	cgagaacagt	gagaataact	ggcgcaatga	gtaccagag	gaggagagca	240
gtgatggaga	tgaggattcc	agaggctctg	ctgactacaa	cagcctgagt	gaggaggaaa	300
gaggcagcag	cagacagcgg	atgtggagca	agtcctctctg	gatgtgcaga	agga	354

<210> 934

<211> 347

<212> DNA

<213> Homo sapiens

<400> 934

ctaccccagt	gccggggagg	gttctgctgc	ttcgaaagct	gctctaccct	tctccaaaag	60
aagagccaag	agaaggctct	tttctacaaa	tatcagagcc	atggctcagg	agtcagtgat	120
gttcagtgat	gtgtccgtag	acttctctca	ggaggagtgg	gaatgcctga	atgatgatca	180
gagagattta	tacagagatg	tgatgtttga	gaattacagc	aacctgggtt	caatgggtaa	240
ggacatctgt	ccatagtaat	ttagattctg	cccttggaag	gcctacttcc	tccaatgtga	300
aatgctcacc	tggctttcaa	aaaccagtcg	aattttgata	tcctggt		347

<210> 935

<211> 402

<212> DNA

<213> Homo sapiens

<400> 935

gttaaaggaa	agtttccttg	ttggttccta	ccatatgaaa	gatgctatat	tctatttttag	60
cagtgccaat	atatggaaaa	tatctaaatt	aaatgttatt	acaaaaatga	agcagtaatg	120
agattctggc	taaagagggc	actaaatgag	aataatatat	attttaaagg	gttgctgccg	180
ccccatctgc	tattgcccgg	cgaggctcgc	gctgcctcag	ctgccatcgc	cgctacaggc	240
accagtgccg	ctgcgcggga	gctagggctg	tcgaggccaa	cccttcgcgc	cccgtgacgc	300
ggggcctgag	agacggagtg	tagggagggg	ccgagcagga	ggaggaggaa	gccggagctg	360
catgaaggag	ggtctggggg	cgagcaaaaca	ggcggcgctt	aa		402

<210> 936

<211> 411

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(411)

<223> n = A,T,C or G

<400> 936

gcagagaaga	aatacaagcc	actcaacaca	acacctaattg	ccaccaaaga	gatcaaagtg	60
aagatcatcc	cgccacagcc	tatggagggg	gatgggttta	aggttgtact	tgtcagaaac	120
caccactgtg	ctgggggagt	ggcatatcct	ggagcagcta	cgttgctctg	acgtttgagg	180
gggatgggtt	taaggttgta	cttgtcagaa	accaccactg	tgctggcatt	cttcttcaca	240
ggcaccaagg	atggtgtctc	cagctctagt	ccagtggaac	ggaacttggc	atgactgggt	300
gctgtggtgc	gaagagactt	gggtttctcc	ctcttcttct	ctggggcctc	ctcagcccgg	360
gtctcagcct	tcacctctgt	caaaggtcgc	tcaagaaggg	tagttcnact	t	411

<210> 937

<211> 398

<212> DNA

<213> Homo sapiens

<400> 937  
acctgcttct gggtcgggggt ttcgtacgta gcagagcagc tccctcgctg cgatctattg 60  
aaagtcagcc ctgcacacaa gggtttgtcc aagcccgtgc tctatggcct cttcctctac 120  
atcgcgctca cctccctcga tggcaaccag ctcgccagc gcgtggccct gctgctcaag 180  
gagcagactg cgtaccccc gacacactac atccggaggg tgccccagag gaagatccac 240  
tacttcacgg gctgcaggt gcttcagctg ctgctgctgt gtgccttcgg catgagctcc 300  
ctgccctaca tgaagatgat ctttccctc atcatgatcg ccatgatccc catccgctat 360  
atcctgctgc ccgaatcatt gaagccaagt acttgat 398

<210> 938  
<211> 375  
<212> DNA  
<213> Homo sapiens

<400> 938  
acctgcttct gggtcgggggt ttcgtacgta gcagagcagc tccctcgctg cgatctattg 60  
aaagtcagcc ctgcacacaa gggtttgtcc aagcccgtgc tctatggcct cttcctctac 120  
atcgcgctca cctccctcga tggcaaccag ctcgccagc gcgtggccct gctgctcaag 180  
gagcagactg cgtaccccc gacacactac atccggaggg tgccccagag gaagatccac 240  
tacttcacgg gctgcaggt gcttcagctg ctgctgctgt gtgccttcgg catgagctcc 300  
ctgccctaca tgaagatgat ctttccctc atcatgatcg ccatgatccc catccgctat 360  
atcctgctgc cccga 375

<210> 939  
<211> 363  
<212> DNA  
<213> Homo sapiens

<400> 939  
ggccccctgca gcagcagcag cggcgtggtc agagcgagct tcggagaagc agtgggtgggt 60  
tccatgtgat ggtggagtag gaggcaggtc tccgcggcta gtcaccctgc tgtggaatag 120  
aaggccagaa ttgatcagtc tcatctgaga gtaactttgt acccatcact gattccttct 180  
gagactgcct ccacttcccc agcagcctct ggtttcttca tgtggctgca gatggcagga 240  
tttcccaaag gtttctggct gaaacatatt ccgtgggtgta tctgtacagc agtttcttca 300  
tccctgcagc tgtgtttgaa caggaaagaa aaaagaagaa aaaaaacctc catacgagag 360  
tgg 363

<210> 940  
<211> 379  
<212> DNA  
<213> Homo sapiens

<400> 940  
cccaggtcaa ggccggcttt gaggccaggc actgcacagg gtgaggagga gacgattctc 60  
tatgacttgt tggccaacac cgagtggcca ccggagactg aagtacagcc tagaggcaac 120  
caaaaacatg gtgcatcctt tatcatcacg aaagcaattc gagatcggtc attattttta 180  
cgccaataca tctggtacag cccggcacct tttttgctcc ctgatggact ggttcgcttg 240  
gttaataaac agataaactg gcatttggta cttgcaagca atggaaagct tttggtgct 300  
gtcaagatca gtgtgtggaa atcaagtctg caaaagatga ttttacctcc attattggga 360  
aatgtcaaag ttccaaaga 379

<210> 941  
<211> 361  
<212> DNA  
<213> Homo sapiens

<400> 941  
gcgtaacttt ttactgcac taatgagggt gttttaagt acactcagtg tacacagatc 60  
ccatcctctg gctgctagga gagaagtgt gaatgttccg tgtggagatg ctcaggaaag 120  
ttatttgagt taaattgctg gctgagagag cttggaagtc cttttcataa aagggtacctc 180  
tttccttttc ttattgaatt cttagaactt agttaaccct ccctgccttt tcttaacaaa 240  
aaggactttt ctaaggactg aagattggca aaaacgaaaa gcttcttcct ccaagagccc 300  
attgaagaag cccagtgtatg agacggtgag atgggttgag cctcgggtgcc tgggtagcaa 360  
g 361

<210> 942  
<211> 375  
<212> DNA  
<213> Homo sapiens

<400> 942  
gccgtcgccg ccatttcaag accgtactag gtagatggtc aattagagtt cccagggttt 60  
gaagcctgta actgctgccg ccgctcaagc cctccagagc attgctacgg ctgctgcctc 120  
tgtactacta cctccaaata cgttcttgtt ggtagtggcg gcagcaggac caattacctc 180  
ttttttgttc tccctcgaga agctccagat ggctgtcttc gtgggcaacg tggccgacag 240  
cacagaacca acgaaacgta tgctttcctt ccaagggtta gctgagttgg cacatcgaga 300  
atatcaggca ggagattttg aggcagctga gagacactgc atgcagctct ggagacaaga 360  
gccagacaat actgg 375

<210> 943  
<211> 345  
<212> DNA  
<213> Homo sapiens

<400> 943  
tagggccgga ccctgcctgc cccttggtt ctcagggctt tgctctgaca ccatgacagc 60  
tgcccggggc tgagggcagc tggctccact caaatgagga agaagggatc actccatta 120  
gggcctgctt tgcttatgca tgtgtgtgca catgcatgta aaccaggagc cttcagctca 180  
cggcctccag gcctgggcca gttcttgtct ctcctgcctg ctcctccgac tggctgtgtc 240  
ctgagtaact ggaacatgag actgtatctg caggactggc cccatggtgg ccgagtcaga 300  
agtctgtttc ctgtgagtcg ccaccgttca ctcagtcttg cctcc 345

<210> 944  
<211> 383  
<212> DNA  
<213> Homo sapiens

<400> 944  
gatgttgtaa agtgcaccc ggtggccagc ccaggatttg tgagggagca gttctgagc 60  
tacatgtttc aacaagcagt gaagaccgac aacaaactgc tcttggaata ccgggtccaaa 120  
tttcttcagg tacatgcctc ctccggacac aagtactccc tgaaagaggc cctttgtgac 180  
cctactgtgg ctagccgcct ttcagacact aaagtgtctg gggaagtcaa agccttggat 240  
gacttctata aaatgttaca gcatgaaccg gatcgagctt tctatggact caagcagggtg 300  
gagaaggcca atgaagccat ggcaattgac acattgctca tcaacgatga gctcttcagg 360  
catcaggatg tagccacacg gag 383

<210> 945  
<211> 424  
<212> DNA  
<213> Homo sapiens

<400> 945

agctaata	gac	cggtatt	gtg	tactgag	atc	agacttc	cagg	gatgaag	cag	ctgtatg	ttc	60
tcatgtc	ctg	gacacta	acca	cgttgat	ggc	tttctaa	atc	cagggag	cag	gaaaatt	cag	120
attcgaa	aca	tccctc	ctca	cctgcag	tgg	gaggtgt	tgg	atggact	ttt	ggctcaa	tat	180
gggacag	tgg	agaatgt	tga	acaagt	caac	acagaca	cag	aaaccgc	cgt	tgtcaac	gtc	240
acatatg	caa	caagaga	aaga	agcaaaa	aata	gccatgg	aga	agctaag	cgg	gcatcag	ttt	300
gagaact	tact	ccttcaa	gat	ttcctac	atc	ccggatg	aa	aggtgag	ctc	cccttcg	ccc	360
cctcagc	gag	cccagcg	tgg	ggaccac	tct	tccggg	agca	aggccac	gcc	cctgggg	ggca	420
cttt												424

<210> 946

<211> 336

<212> DNA

<213> Homo sapiens

<400> 946

gaaagact	tct	tttccag	agg	ctaaaag	ggac	aagaaa	atct	gatttg	cctt	gtt	cttaact	60
tgcgttt	ttaa	aggggga	aagg	aggaaag	gaa	agagggg	gag	gtgtcg	gag	t	ttctcct	120
ttgctga	gga	gacccca	ggc	tcccggc	cag	cctgtga	cac	agggcg	acag	cgattga	gca	180
gaaagct	gct	gtggaaa	accg	agtgggg	act	ttactga	tag	tgacagt	gat	gacttcg	gag	240
aggctga	cgg	ccggtac	ttc	aggctca	gcc	agcagtc	caca	ctgccc	agat	ttctttc	ttt	300
tcctctg	ccg	cctgctc	agc	ccgctgt	c	ag	gcct					336

<210> 947

<211> 388

<212> DNA

<213> Homo sapiens

<400> 947

ccaaggca	caca	gacagg	agag	gtggcag	cctt	tcaaagg	ttg	gccccgc	ctc	tcctgg	cctag	60
tgattgat	gg	gaagcat	cta	gccaaag	cccc	caaagg	actg	gcacct	ctg	gccagg	gaca	120
cagggact	gg	gactgc	ctac	attgagt	tata	aaaccag	caa	agaagg	cagt	acgggt	ggggg	180
tcacagt	gtc	ccacgca	tcc	ctgctgg	cac	agtgc	cgggc	tctga	ccccag	gcgtgc	gggt	240
actcaga	agc	tgaacat	ta	acaaac	gctgc	tggatt	tcaa	aagggat	gct	ggtctg	tggc	300
atggcgt	gtt	aacaag	cgtc	atgaac	agga	tgcacg	tgg	cagcgt	cccc	tacgcg	cgtga	360
tgaaggc	gaa	cccact	ctcc	tggat	cca							388

<210> 948

<211> 380

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(380)

<223> n = A,T,C or G

<400> 948

attatttt	ttaa	atggaat	tgt	tccctta	aatt	ttctttt	cat	attgttt	tatt	gctagt	tatat	60
agaagtag	aa	cttttat	ttc	tgatctt	gt	acctgca	aatt	ttgttga	aatt	tgtctat	tac	120
ctctaata	tata	ttctttt	gt	gtccttt	tag	ggttttt	ctat	gatagg	atca	tgacac	ctgc	180
aaatagag	at	gttttt	actt	cttcttt	tcc	aatttat	atg	cctttt	tatt	atcatt	cctg	240
cctaatt	tact	cagact	tag	cttccag	t	agtgtt	gaat	agcagt	ggta	gaagt	gggca	300
ccttgtc	tgt	tcctgg	cata	ggggga	agct	tttagct	ttc	accgct	gaat	ataatg	ntag	360
ctgnngg	gatt	ttcatta	aatg									380

<210> 949



<211> 386  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(386)  
 <223> n = A,T,C or G

<400> 949  
 atcggctccc gcagccccgc gtgggctcgt gcgagtcggc ctctgtgtct gcgagattaa 60  
 tctctcatgg ccgctgcaca agaacctggc ttttagctga actaaggaga aagtcctaca 120  
 acagtttggc gtgcaacatg gggcttgaga aagggtgagt gagatgcaaa ccaagaaatt 180  
 tttttcctct ctttctaagc ctatttatct tcggacttct gagggggagg ggngnggaag 240  
 cnnnnacccc ccccccttg gtctccatgg ctttttcctt acttctggac ggatgggcga 300  
 acggcggnct tctgtcgccc aggctggant gcagnggcgc catctcggt cactggaagc 360  
 tccacctccc gggtcacacc attctc 386

<210> 950  
 <211> 405  
 <212> DNA  
 <213> Homo sapiens

<400> 950  
 attgctccta gtggaaatac agggtttagt cctatgagcc tttggtcata acattttcat 60  
 caatggatca atacataacc ttattttatg tgtgtttctg tttaaagata cattatttaa 120  
 tatatatgt tgattcatta aactgaact cacagttgt aagtcatacc tgaatgttgt 180  
 ttatcttaca catattttct ccgtaaggca catcacagcc ttctgtgtct taggaatgct 240  
 agatcacctc tcagtctggt tcagtgttag ctgggaacat atgtgagagg agaggttcaa 300  
 atttttggct ggtctgcaca tgtctgcaaa tgacctcaaa agtgetgtat taacttagag 360  
 gttacaaatc aattttgagt agataaatc tcaaatatga aatcc 405

<210> 951  
 <211> 381  
 <212> DNA  
 <213> Homo sapiens

<400> 951  
 ctccctatgc agtctggttt ctagcgtgac acgcccttga cttgaggacc atgaaccgca 60  
 gccgccaggt gacgtgcgtg gcctgggtcc gctgcggcgt ggccaaagag acaccagaca 120  
 aggtgaggcc tggctgctgg gagacaaggg gagcagcgtc tttacggcac tgggggtccg 180  
 cccagctggg ggaacgtgga cccggaactc ggggcgttgg ctggtgacgac tggctggggg 240  
 gagggcggct ttgcccgat tgtcgcgact agagctgcag ttcagaaggc ctggttcgcc 300  
 tgagcctgga gactcaaggg ccgcgccttc tcaactgttc caccctcaag cccaacccca 360  
 ctcccaaatt cgcacgcaca t 381

<210> 952  
 <211> 346  
 <212> DNA  
 <213> Homo sapiens

<400> 952  
 gccctttagg aggatttcct tttcctcact aaaagccccc tgaaagatgc ctcagggtat 60  
 gcctctgtgc cctactgccc actgctgctt tcctgtttcc taggaatccc ctttatgaag 120  
 taccatcct ccagaaagat ttcttaccta ccttgaaagg atcttggtct ctcacaaagg 180  
 gtactccatc ctctgagcag gtatttccga ttctactttt gaatggtttc ttttcaaatt 240

ttcctcagtg ctttctcttt ctggctaccc ctccagccca ctaccagcct ttggtgcttc 300  
 tttaaattgc tgcttctttg aacacacata tccatctctt cttgtc 346

<210> 953  
 <211> 400  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(400)  
 <223> n = A,T,C or G

<400> 953  
 cttgactttg ggcaaataag agagcttcaa agaacagctt catccttttc tttgggagag 60  
 gtggagggtt gagaagcagg agcagggaga tcagaaagac catgagggtg cttcttttagc 120  
 acatcaaagt gccacatttt gggatattcg tttctgagct cagactttcc tggacatttc 180  
 acatgttaac agatgagcta gtgactgttg agaggaaaat agagttagta gctgaatggt 240  
 aaaagatccc attaaaccag tctctcattc ctgagaatag gccaaaccaa ctaaacagta 300  
 gtttctcatt ttaagagatg gtattgnaga tgggctctca aaattagacc tctatccatg 360  
 acacaggcaa acagatcttt aataagagat atttttatgg 400

<210> 954  
 <211> 380  
 <212> DNA  
 <213> Homo sapiens

<400> 954  
 tgacacttaa gtcagagcat tctgtagctg tattttacag aactgtaatt gcacagattg 60  
 ttcctcttac aagagaaata tccagagctc taagaaaaca actgatgaaa acgacatgag 120  
 tgacatttgg tgctgaagac ccaggtcaga gagactcctt tgggggacca gtccgctgtc 180  
 cttgccctca ctctgtgagg agaccacact acgacctcgg gtccctcagac caaccagctc 240  
 aaggaacatc tcaccaattt caaatcgagg cccactgga aaatggactg tccaactcac 300  
 ccggcagcca ctcccagagc ccctggaact ctggcccaag gctctctgac tgactccttt 360  
 ccagatcttc tcgggtcaag 380

<210> 955  
 <211> 396  
 <212> DNA  
 <213> Homo sapiens

<400> 955  
 gtccgcgcgc cgcgacgcca agaagctggt gcgctccccg agcggcctgc gcatggtgcc 60  
 cgaacaccgc gccttcggaa gcccgttcgg cctggaggag ccgcagtggg tcccggacaa 120  
 ggagtgtcgg agatgtatgc agtgtgacgc caagtttgac tttctcacca gaaagcacca 180  
 ctgtcgccgc tgcgggaagt gcttctgcga cagggtgctg agccagaagg tgccgctgag 240  
 gcgcatgtgc tttgtggacc ccgtgcggca gtgcgcggag tgcgccctgg tgctccctcaa 300  
 ggaggcggag ttctacgaca agcagctcaa agtgcctcct agcggagacca ccttcctcgt 360  
 cacgtttgga aactcagaga aacctgaaac tatgat 396

<210> 956  
 <211> 363  
 <212> DNA  
 <213> Homo sapiens

<400> 956

caccatgtct	gtgcccctgc	tcaccgatgc	tgccaccgtg	tctggagctg	agcgggaaac	60
ggccgcggtt	atTTTTTTac	atggacttgg	agacacaggg	cacagctggg	ctgacgccct	120
ctccaccatc	cggtccctc	acgtcaagta	catctgtccc	catgcgccta	ggatccctgt	180
gaccctcaac	atgaagatgg	tgatgccctc	ctggtttgac	ctgatggggc	tgagtccaga	240
tgtcccagag	gacgaggctg	gcataaagaa	ggcagcagag	aacatcaagg	ccttgattga	300
gcatgaaatg	aagaacggga	tccctgccaa	tcgaatcgtc	tgggaggctt	ttcacagggc	360
ggg						363

<210> 957

<211> 357

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(357)

<223> n = A,T,C or G

<400> 957						
tggtcagttt	gtttattaaa	ataagatgtc	taatcctctg	ttataattta	agctataact	60
gttgattgtt	atgttattaa	taattggttt	tcaattgcta	aaatataaga	atatttgaag	120
atgagaggag	aggttaacat	ttttttttac	agagtctcac	tctgtagccc	aggctggagt	180
gtagtgggtg	gatctcggct	caactgcaagc	tccgcctcct	gggttcacgc	cattctccta	240
cctcagcctc	ccaagtagct	gggactacag	gcacctgcca	tcacgcctgg	ctaatttttt	300
gtatttttag	tagagatggg	gtttcaccat	gttagccagg	atggnetcaa	tctcctg	357

<210> 958

<211> 364

<212> DNA

<213> Homo sapiens

<400> 958						
gcaggcccca	acctatccat	ggtttggggc	tgctatctgc	ctcataaagc	aaagtggagg	60
gtttgtcttt	tggaaaaaca	aagtcgtttt	ctcctctgaa	aaagcctcct	acatagttgg	120
ctttgccatt	tgccaagaat	aagagggcac	agattgaggc	ctcttgagta	tgggttttca	180
gttgagggtg	aagagagaag	acagggattg	taaccagaaa	attcagaatg	gaatgcagtt	240
ccctccagaa	ctcctgagct	tcattgacagt	catagaagtg	gattcctttt	agtttccctt	300
caccocgcaa	acgtaccgta	ataatgcagg	atacaggtat	taagttccta	ctcaagctat	360
aatc						364

<210> 959

<211> 355

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(355)

<223> n = A,T,C or G

<400> 959						
gcggccggcg	gggtgctggg	ttcccgctctg	ctgcctctcg	gagagtcccc	ggtgactgcc	60
gcaggctcca	tcgccctgtg	gcctgcagggt	attgcgagat	ttatagggag	gacgctggga	120
cccccaaaag	ctgggaaaatg	ggactattgg	cattcaggga	tgtggctcta	gaattctctc	180
cagaggagtg	ggaatgcctg	gacccagctc	agcggagttt	gtatagggat	gtgatgttag	240
agaactacag	aaacctgatc	tcccttggtg	aggatagctt	caatatgcaa	ttcctatttc	300

acagtcttgc tatgtctaaa ccagaactga tcatctgtct ggaggcaang gaaga

355

<210> 960

<211> 405

<212> DNA

<213> Homo sapiens

<400> 960

gttaaagtta	gaatagtaat	gttgggaggg	taaattggga	ggatcacctg	agaccaagag	60
ttagagccca	gcctgagcaa	catagtgaga	ccccatctct	acaggaaaat	ttaaaaaaat	120
tagctgtgcg	tgggtggtgca	cacctttagt	cctagctact	cggaaggctg	aggtaggagg	180
atcacttgag	cccaggagtt	tgaggttgca	gtgaattact	atgattgctc	cactgcatga	240
cagagcatga	ccctgtctct	aaaaaaaaa	aaagtaaaag	aatagcgatg	ttgaaaatga	300
ggtaatgagg	tgcccttccc	ccccaaaaa	gagtagttgt	tagcttttag	ctgtcatcgt	360
ggtacagcta	ccattttaag	ggaagggtag	ccttccctta	aaact		405

<210> 961

<211> 386

<212> DNA

<213> Homo sapiens

<400> 961

gctgcatctg	ctggcactgg	gagccacaga	agggttttga	gcagggaaac	gacttactgt	60
gtttttaccg	gggcgggggg	gatccttatg	gcagcagaga	ggggtgtgag	ttctgagcca	120
gtcctttccc	aaggagagag	acccttccct	cagggtgagg	ccagtccctag	tcccagaagc	180
ccccacccc	ccgatgcccc	ggaccctctc	cctgactgcc	cccatctctc	cgcagggatg	240
tttcatcttc	tcgctcgtca	agtacgtacc	cctgacctac	aacaaaacat	acgtgtaccc	300
caactgggcc	attgggctgg	gctggagcct	ggcctttcct	ccatgctctg	cgttcccttg	360
gtcatcgcat	ccgcctctgc	agactg				386

<210> 962

<211> 351

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1) ... (351)

<223> n = A,T,C or G

<400> 962

cttttgccta	gggttgaccc	gtttccgcca	ctgatcagct	gaatgaccct	gggacaagtc	60
ccttaaacct	tctggatctc	attgcatctg	taaagtctga	gagaatgaca	aagtgtcctt	120
tctagtccct	accctatgcc	tcatcctgta	ctttctccat	agggtgccaa	cgctctggga	180
gagccccagg	tgccttccca	gcaggccacc	tcctgctgtt	tctcaccctt	ggtgtccttt	240
ctctgctcct	tttggtgact	ggagcctttg	gctttcacct	ttggagaaga	cagggtgagcc	300
agggacatgg	caaccccgcc	ccccancagc	tccgctcttc	atcctcagaa	g	351

<210> 963

<211> 348

<212> DNA

<213> Homo sapiens

<400> 963

gccgcggggc	cgggcggctg	caatatggcg	gaggcggaag	gggaaagcct	ggagtccctgg	60
ctcaataaag	ccaccaatcc	ttccaaccgc	caggaggact	gggaatacat	aattggcttc	120

tgtgatcaga	tcaacaagga	gctggaaggg	tgagtctcag	cactgtgggg	gcagctgaga	180
gggagcggac	tggaagggg	aacaaccatg	gccaaaggagg	gccagccagg	tagccccagg	240
cttagtgac	tgagtggtgt	tctgcttgtc	ccccaggcca	cagatcgccg	tccgactgct	300
ggcccacaag	atccagtcct	cacaggaatg	ggaggcgctc	cacgcct		348

<210> 964  
 <211> 379  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(379)  
 <223> n = A,T,C or G

<400> 964						
tccagctcct	ctcaacagcc	caaccacac	cagcctcaga	caccaccatg	accggctcct	60
gctgcggtc	caccttgtct	ttcctgacct	acgggggagg	tgtgggagga	ttttctggac	120
attacaaagc	cacctgttgt	ggacctgatg	naaacatnan	antaanangn	cgctnagaat	180
gttaanagnn	tantgctaaa	cacatgggag	ntgantccan	agtacagaca	ctatcctgga	240
gaagaaaana	tttnntaana	atactantag	ccagcgnntt	nntnattcga	ctntcngccc	300
tgctatgcaa	aangngctga	tnttggnagg	cttgaacncc	gtatgtnaat	aagggttaaa	360
tgacaatctt	tnggttttt					379

<210> 965  
 <211> 411  
 <212> DNA  
 <213> Homo sapiens

<400> 965						
ggcacttttg	acttcctggg	gtccttcttc	agttaaaaaa	aaaaattaga	aaattaggcc	60
gggcgtgggg	gcacatgcct	gtgatccacc	cacctcagcc	tcccaaagtg	ctgggattac	120
aggtgtgagc	cactgtgccc	ggccttgact	accatatctt	aaattttactg	gaggactttt	180
ttgttctctt	cttttttctt	tttttaatat	catcccgctc	ttatttcaga	ataaaaaatt	240
tttaaggtat	gttgagtaag	aatctataga	gcaatgaaaa	tgcaagagca	atagctatgg	300
gcaccaaagt	gtcaatcttc	ttatcataat	gttgagtgga	agaagccagg	tccaccagac	360
acatgctgct	cattttattca	aagtttggac	acaggcaaaa	caaaatagtt	t	411

<210> 966  
 <211> 407  
 <212> DNA  
 <213> Homo sapiens

<400> 966						
accaggatgg	ttttttggag	taccaagcaa	ggggaatgga	gcactttaag	ggcgctgtt	60
agtaacatga	attggaaatc	tgtgtcgagt	acctctgatc	taaacggtaa	aacaagctgc	120
ctggagagca	gctgtacct	acaatactgt	aatgtacatt	aacattacag	cctctcaatt	180
tcaggcaggt	gtaacagttc	ctttccacca	gatttaatat	ttttatactt	cctgcagggt	240
cttcttaaaa	agtaatctat	atttttgaac	tgatacttgt	tttatacata	aatttttttt	300
agatgtgata	aagctaaact	tggccaaagt	gtgtgacctga	attattagac	ctttttatta	360
gtcaacctac	gaagactaaa	atagaatata	ttagttttca	agggagt		407

<210> 967  
 <211> 403  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(403)  
 <223> n = A,T,C or G

<400> 967  
 gttttgttta tttctgcaag attgtgaaaa caaaactttg ggtatttggt tcccattcag 60  
 gagatctggg agtgacttca tgtattttct taacagtctt tgatcgtcac ctttcaattt 120  
 agactctaga gacagggaga ttgatgattt ctcagcaaaag aagcttgtat ttgagttgaa 180  
 agttgaaaat gaaggcaagg tcttcattta aacttttaaaa tttctacaca tttctttcaa 240  
 gtattaaatt tttcttttgc agttattcta cctatggaaa tccaggcagc caaggctatg 300  
 gacaagcatc acaaagctat tctggctatg ggcaaacgac tgattcctct tatggacaga 360  
 actacagcgg ntactccagt tatggacaaa gttattcaca gtc 403

<210> 968  
 <211> 281  
 <212> DNA  
 <213> Homo sapiens

<400> 968  
 ctgtcttttag ctttgaagca gttttcatgt aatcattgcc acctcttcgc tacatgaact 60  
 actattgata ccagcatata agtgtatagc actttacaca caagagggtt attgatgtaa 120  
 aattatcggc tagggaagca gcagcggggc aggtgtggtg gcttaccctt gtaatccag 180  
 cactttggga ggccaaagca ggacgatcac ttgagccag gagttcaaca ccagcttggg 240  
 caacataaga agaccgtgtc tctggaattt tttttttttt t 281

<210> 969  
 <211> 398  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(398)  
 <223> n = A,T,C or G

<400> 969  
 gccatcacag tcctcctccg aggcctaggc cgccccagc agcacagacc ccgcgcctc 60  
 ctacggccga ctctgggttc cttcagggtg ttggtgtcgg cagggtgtgc agggcacatg 120  
 cctggcgggc tgggggtccc acccgaggag acggtcctan acccagtggg gnagggtgtg 180  
 naggnttnac cnaaacannt ncncnntttc atcaanaatt anttnntann cnccttttnc 240  
 tntatntnnn tcncccnat aattantact nncacnchnat tntannatna cmtncntcc 300  
 tntnttttat ncttnatgnt gaagcnnnnn ctntnnantc ntattnaatc gctantncta 360  
 ancacngnan atnnccatcn tttataaaca nnctctat 398

<210> 970  
 <211> 479  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(479)  
 <223> n = A,T,C or G

<400> 970

tttgnactcn	ataatacatt	ntacttctctc	tttttgcagg	atcccatcga	ttcggttcag	60
agaggccagg	ccctgtgtcc	gtggctgccc	agggagaaaag	ggcagtgtga	tctcctgcct	120
ccccagcctt	ctgcagatat	catggccatc	tccagaaggc	taggatcggc	accgtttccc	180
tgcaccttta	aagactgttt	gggcccggcg	tggtaggtca	tgcctgtaat	cccagcactt	240
ttggaggcct	aggtgggcgg	atcatgaggt	caggagatcg	agatcatcct	ggctaacacg	300
gtgaaatcct	gtctctacta	aaaatacaaa	aaattagcca	ggcatgggtg	cacttgacctg	360
tagtcccagc	tactcgggag	gctgagacgg	gagaatctct	tgaaccggg	aggtggagggt	420
tgcggtgggt	ggagatcaca	ccactgcact	ccagcctggg	tgacacagta	ggaatctgt	479

<210> 971

<211> 481

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(481)

<223> n = A,T,C or G

<400> 971

tttgnactc	tanaatacan	nctacttgnt	ctttttgcag	gatcccatcg	attcgtttag	60
atgttccaga	gtcctcagag	tccatgaaag	gactcacagt	ggagaaaagc	cctatgaatg	120
taaacaatgt	ggtaaagcct	tcaaatattc	tagtaaccta	tgtgagcatg	aaagaactca	180
catgggagtg	aaaccttatg	gatgtaagga	atgtggtaag	tcgtttactt	cttccagtgc	240
ccttcgaagc	catgaaagga	ctcatactgg	agaaaaaccc	tatgaatgta	agaaatgtgg	300
taaagccttc	agttgttcca	gttcccttcg	aaagcatgaa	agagcttata	tgtggtaaaa	360
aacaacaaca	acaaaacacc	tctgtcaatg	taagaagtgt	gttaaagctt	tcagttattc	420
tagtttcatt	agaacacgtg	aaaaaattaa	aaactcaaat	tagagagaaac	ccaacacatg	480
t						481

<210> 972

<211> 421

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(421)

<223> n = A,T,C or G

<400> 972

catggtgtgc	cactccttgc	ctgtccccac	agctcttcct	gcagactctt	ttttcccag	60
gatcctgtta	agattgtccg	ggcccaagg	cagtacatgt	acgatgaaca	gggggcagaa	120
tacatcgatt	gcatcagcaa	tgtggcgcac	gttgggcact	gccaccctct	cgtggtccaa	180
gcagcacatg	agcagaacca	ggtgctcaac	accaacagcc	ggtacctgca	tgacaacatc	240
gtggactatg	cgcagaggct	gtcagagacc	ctgccggagc	agctctgtgt	gttctatttc	300
ctgaattctg	ggtcagaagc	caatgacctg	gccctgaggc	tggtctcgca	ctacacggga	360
caccaggacg	tgggtggtatt	agatcatgcy	tatacgggca	cctgactncc	tgattgacat	420
a						421

<210> 973

<211> 397

<212> DNA

<213> Homo sapiens

<400> 973

aagaattcct	attggagggtg	ttaaactctac	aagcaagaca	tatgttataa	gtcgaactga	60
accagcgtatg	gcaactacaa	aagcaattga	tgactcttcc	gcgtctattt	ctctggccca	120
gcttacaaaag	actgccaatc	tggctgaagc	caatgcttct	gaagaagata	aaattaaagc	180
aatgatgtcg	caatctggcc	atgaatacga	cccaatcaat	tacatgaaga	aacctctagg	240
tccaccacct	ccatcttaca	cgtgtttccg	ttgtggtaaa	cctggacatt	atattaagaa	300
ttgcccacaa	aatggggata	aaaactttga	atctggctct	aggattaaaa	agagcactgg	360
aattcccaga	agtttcatga	tgggaagtga	agatcct			397

<210> 974

<211> 346

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(346)

<223> n = A,T,C or G

<400> 974						
gccaccatgc	ctggcccatg	attccacttt	tatacaatat	tttaagtagt	aaactaggaa	60
atagaagtag	aaagatgttt	gcctatggta	agagctgtga	aacctcagtg	gagccagaga	120
tcaaggaggg	ttatttagaa	aaaggagggtc	ctcaccagg	tggccaactc	aaaggcacat	180
agacttggct	acagacaagg	aaacagtgc	gagtttggcc	ttactgaaga	ttatgaaaca	240
gttctgcaac	ctttctcaaa	ctcctatcag	ctacagtcca	caagtgggct	ttccatcaga	300
aatctgcagg	gaaacagnca	gcataatnct	gnggcaggct	gtgatc		346

<210> 975

<211> 341

<212> DNA

<213> Homo sapiens

<400> 975						
atcgatgctc	tcctggctcg	cgtaacttca	gtaggatcat	ctgggggaca	gctgctgacc	60
aaccttccag	gaatggagca	gctctcggga	gctagcttgg	agaaaggagc	cttggacacc	120
actgatgggt	acatgggggt	gaatcaagcc	ccagagaaac	tggacaagca	atgtgagatg	180
atgaaggccc	gtcaccaaga	attgctgtcc	cagcagtaaa	atttcattct	ggccaccag	240
tcagctcagg	ccttcttggga	tcagcatggc	cacaatctca	cacctgagga	gcaacagatg	300
ctgcaacaga	agctgggaga	gctaaaggaa	caatactcta	t		341

<210> 976

<211> 342

<212> DNA

<213> Homo sapiens

<400> 976						
atcgatgctc	tcctggattg	ggtaacttca	gtaggatcat	ctgggtggaca	gctgctgacc	60
aaccttccag	gaatggagca	gctctcggga	gctagcttgg	agaaaggagc	cttggacacc	120
actgatgggt	acatgggggt	gaatcaagcc	ccagagaaac	tggacaagca	atgtgagatg	180
atgaaggccc	gtcaccaaga	attgctgtcc	cagcagcaaa	atttcattct	ggccaccag	240
tcagctcagg	ccttcttggga	tcagcatggc	cacaatctca	cacctgagga	gcaacagatg	300
ctgcaacaga	agctgggaga	gctaaaggaa	caatactcta	ct		342

<210> 977

<211> 479

<212> DNA

<213> Homo sapiens



```

<220>
<221> misc_feature
<222> (1)...(479)
<223> n = A,T,C or G

```

```

<400> 977
ttttnaaccc cccttaacaa acccccnttt ttnatcccc ttaatacaag ctacttggtc      60
tttttgcagg atcccatcga ttogaattca aggcctgtcg agcctctaga cattgcggcc      120
gctatctacg tagatccaga catgataaga tacattgatg agtttggaca aaccacaact      180
agaatgcagt gaaaaaaatg ctttatttgt gaaatttgtg atgctattgc tttatttgta      240
accattataa gctgcaataa acaagttaac aacaacaatt gcattcattt tatgtttcag      300
gttcaggggg aggtgtggga ggtttaaann ancaaccttt nccttttttt ntaaaangnn      360
tccccctatg ngnttttncn atganaannn annaaccttn nggtttnttn tccaaacaag      420
ntntnccggg naannnnntt ntatnncnaa cttnttttnn attctccnaa aaaaccct      479

```

```

<210> 978
<211> 401
<212> DNA
<213> Homo sapiens

```

```

<400> 978
gcggtgtttg cattccagtt gcgcaatcct gtccacaatg gccatgccct gttgatgcag      60
gacactcgcc gcaggctcct agagaggggc tacaagcacc cggtcctcct actacacctt      120
ctgggcgggc ggaccaagga tgacgatgtg cctctagact ggcggatgaa gcagcacgcy      180
gctgtgctcg aggagggggg cctggatccc aagtcaacca ttgttgccat ctttcctgtc      240
cccattgtat atgctggccc cacagaggtc cagtggcact gcagggtccg gatgattgcy      300
gggtgccaatt tctacattgt ggggaggacc ctgcaggaat gccccatcct gaaaccaaga      360
aggatctgta tgaaccact catggggggc aaggcttgag c                                401

```

```

<210> 979
<211> 417
<212> DNA
<213> Homo sapiens

```

```

<400> 979
gcagaagatt ttttcattta atgtctgggg taaaattgca actttttgga acaaggcttt      60
ccttaccatt atcatcctat tgattgttct atttctagat gctgtgagag aagtaaggaa      120
atattcctca gttcatacca ttgagaagag ctccaccagc agacctgatg cctatgaaca      180
cacacagatg aaacttttta ggtctcaaag aaatctttac atttctggat tttccctatt      240
tttttggtta gttttgagac gtctggttac gcttattact caactggcaa aagaactgtc      300
aaacaaagggt gtacttaaaa ctcaagcaga aaatactaac aaggctgcca aaaaatttat      360
ggaagaaaac gaaaaactaa aaaggatttt gaaaagccat ggtaaagatg aagaatg      417

```

```

<210> 980
<211> 486
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(486)
<223> n = A,T,C or G

```

```

<400> 980
ttgaaacccc ttggnnatct tgnnacccct taatacaagc tacttggtct ttttgcagga      60
tcccatcgat tcgaattcgg cacgagtaga ggttaatggg gttgacctga ggaactccag      120

```

ccacgaagaa	gccatcacag	ccttgaggca	gacccccag	aaggtgcggc	tgggtggtgta	180
tagagatgaa	gcacactacc	gggatgagga	gaacttggag	attttccttg	tggatctgca	240
gaagaaagct	ggccggggcc	tgggcctgag	catcgttggg	aaacgaaatg	gaagcggagt	300
gtttatctct	gacatcgtga	aaggcggagc	cgcagacctg	gatgggagat	tgattcaggg	360
agatcagatc	ttatctgtga	atggggagga	catgagaaat	gcctcacagg	agacagtggc	420
caccatcctc	aagtgtgcac	agggacttgt	gcagctagag	attggaagac	tccgagctgg	480
ttcctg						486

<210> 981

<211> 348

<212> DNA

<213> Homo sapiens

<400> 981

ggaggaagtt	cggaagtg	cgaggctgct	tgctggtata	ctgcatcttg	ggaacataga	60
atztatcact	gctggtggg	cacaggtttc	cttcaaaaca	gctttgggca	gatctgcgga	120
gttacttggg	ctggacccaa	cacagctcac	agatgctttg	acccagagat	caatgttcct	180
caggggagaa	gagatcctca	cgcctctcaa	tgttcaacag	gcagtagaca	gcagggactc	240
cctggccatg	gctctgtatg	cgtgctgctt	tgagtgggta	atcaagaaga	tcaacagcag	300
gatcaaaggc	aatgaggact	tcaagtctat	tggcatcctc	gacatctt		348

<210> 982

<211> 339

<212> DNA

<213> Homo sapiens

<400> 982

cggaacaaat	gtggaaactg	actttgtaga	ggtgccatcg	caaatgcttg	aaaattgggt	60
gtgggacgtc	gattccctcc	gaagattgtc	aaaacattat	aaagatggaa	gccctattgc	120
agacgatctg	cttgaaaaac	ttgttgcttc	taggctggtc	aacacaggtc	ttctgacctt	180
gcgccagatt	gttttgagca	aagttgatca	gtctcttcac	accaacacat	cgtcggatgc	240
tgcaagtgaa	tatgccaaat	actgctcaga	aatattagga	gttgcagcta	ctccaggcac	300
aaatatgcc	gctacctttg	gacatttggc	agggggata			339

<210> 983

<211> 699

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(699)

<223> n = A,T,C or G

<400> 983

ganntcgtta	caagctactt	gttctttttg	caggatccca	tcgattcgaa	ttcggcacga	60
gggtagctgg	gactataggc	acacaccacc	acgccgggct	aattttttat	gttttttgta	120
gagacagggt	tttgccatgt	tgcccagget	ggtcttgaac	tgctgggttc	aagcgatctg	180
ttctgctcag	cctcccaaag	tctgtgatt	acaggtgtga	gctaccatgc	ctggcccctt	240
tttacagatt	tgaggatgg	tttatatcac	ctcaatttct	gagaacctca	agctatgaac	300
ttcgtttaag	gtagttccaa	gtttaaggta	gaaccagttc	caggttccta	acccactcc	360
cagatacctg	gcagaatcaa	agatgaatct	ccggaggagg	gcaccttctt	cctaattttc	420
aagggtcaat	gagcagtaca	gtcagaaata	acaaagcgta	cagggaaaca	aaatgtgatg	480
cgagaaacaa	cagaagcaat	gaatagaata	aaagaaaacc	agactcacia	attctttgtg	540
tattatgagt	acagagacaa	ataaaaacct	atgcttattg	ngttcataga	aataaaaagta	600
cccttataaa	taccttcagt	gaatgggtaa	caattaaaaa	gtggcttggc	agatttttaag	660

aagggttaaac aaaaaaanaa nnnnnnnnna aaaanctcn

699

<210> 984

<211> 762

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(762)

<223> n = A,T,C or G

<400> 984

nttatcagct	cttgttcttt	ttgcaggatc	ccatcgatcc	gaattcggca	cgaggccact	60
gccgtctccg	ccgccactgg	gccccagag	ccccagcccc	agagcctagg	aacctggggc	120
ccgctcctcc	cccctccagg	ccatgaggat	tctgcagtta	atcctgcttg	ctctggcaac	180
agggtctgta	gggggagaga	ccaggatcat	caagggggtc	gagtgcgaagc	ctcactccca	240
gccctggcag	gcagccctgt	tgcagaagac	gcggctactc	tgtggggcga	cgctcatcgc	300
ccccagatgg	ctcctgacag	cagcccactg	cctcaagccc	cgctacatag	ttcacctggg	360
gcagcacaa	ctccagaagg	aggagggtctg	tgagcagacc	cggacagcca	ctgagtcctt	420
ccccacccc	ggcttcaaca	acagcctccc	caacaaagac	caccgcaatg	acatcatgct	480
ggtgaagatg	gcctgcagc	tctccatcac	ctgggctgtg	cgacccctca	ccctctcctc	540
acgctgtgtc	actgtgggca	ccagctgcct	catttccggc	tggggcaaca	cgttcagccc	600
ccaattacgc	ctgcctnaac	cttgcgatgc	gccaacatac	catcattgac	accagaatgt	660
gagaacgcct	acccggcaac	atcacagaca	ccatggtgtg	tgccaacgtg	cangaanggg	720
gcaaggatcc	tggcaggtga	cttcggggcc	cttttggttg	ta		762

<210> 985

<211> 695

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(695)

<223> n = A,T,C or G

<400> 985

ttcaaataca	agctcttggt	ctttttgcag	gatccctcga	ttcgaattcc	gttgctgtcg	60
cccatctgct	tgtcgtttta	aacctagaaa	atagtggcta	ttggctgggc	atgatagctc	120
acgcctgtaa	tcccacactt	cggggggctg	aggcaggctc	gtacaaaaaa	ttcaaaaaaa	180
ttagctcagt	gtgggtgggc	cacacctgta	gtcccagata	ctcgggaggc	tgaagtggga	240
caatcacctg	agcctggcag	tcaagctaca	gtgaggcacg	attgaacctc	tgctctccan	300
cttgggtgac	agagtaagac	tctgtctcan	aaaaaaaaaa	acaaaaaaca	gtggctatta	360
atcttcccct	cagttcctcc	catcctnctn	cccttcccgg	ggctagaaaag	ccgaagctga	420
gattcaatcc	canangccag	ctggatttgg	gagacctcaa	atgccangtc	aggcataagt	480
tgcactctac	ccacatcacc	aagtgtcccc	aggaaagcag	aagtgtgtcc	tcttnctttt	540
tcaggtctca	cttctgctga	catgggctan	ggctgaanag	ttccaatggg	aaggtcacag	600
cccgtnccaa	ggaaaaanaa	aatgggaaca	ngcattgggg	agaccaactg	tntgtacca	660
tctcctnttt	gtcctgggnag	aaggtcctct	ttctg			695

<210> 986

<211> 640

<212> DNA

<213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(640)  
 <223> n = A,T,C or G

<400> 986  
 ttgaactata ganacaagct acttggttctt tttgcaggat cccatcgatt cgaattccgt 60  
 tgctgtcgnc aacagccaca ggcagactga ggtggcaata ggaaatctgc cgagatgttc 120  
 agtcagggtgc ccaggacccc agcctcaggc tgetactacc taaattccat gacacctgag 180  
 ggccaggaga tgtacttgcg atttgatcag actacaagac gctctcctta caggatgagc 240  
 cggattctag cacgccatca gctagtgact aaaattcaac aagggtgagtg gccggcagtg 300  
 gaaggctgtt gctcattctg atttctgttg gctctatctt atgctaacct antttttttt 360  
 gtttgtttgt ttccacttta taacatatgg atttctatgc cacactacct gtaactttga 420  
 aaaataactt tangctgcag ttttcagcaa acaggacagt ccttagctgc cacatagctc 480  
 aacataaagt gcacaaaaaa cttcacggtg ggacagtga tcataaatnc ccaaactgac 540  
 gtgtgtctac agaacagatg agaactgtta ctacagtgtg atcttaagag cttttctgca 600  
 gtttcctcac actccgtcac atttaaaatg tggcacttgt 640

<210> 987  
 <211> 669  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(669)  
 <223> n = A,T,C or G

<400> 987  
 ttnttcgnta caactctngt gnttntgcag gatcccatcg attccaangn tncngatgtc 60  
 gnnagaacgt cctccttcc cttttgctcc tgtcccgac cttctacctg atagatgtga 120  
 agcccaagcc gattgagata ccactcagtg gggaggctcc aaagactgat attccttggtg 180  
 aattacctac tttcactgaa tctaaagaga acatgggtgga tcttgacact caactgaagg 240  
 gaactaagga tgaagacttt atacagccgc caccagttac atcatcacc ataacaccat 300  
 caacacctat ttcattacct aaaggaccca tcacttcttc tgaagaacct aactccagg 360  
 ccaaatacaca aatgacggcc cagaacagca aggctagtgc aaaaggagca taaaggacta 420  
 cttgaggatg gagctcactc tcttcaactt tcnggcctca acagtggcat ctgtaaagga 480  
 cctccagata aactgttgcc ttcaaaaacg gatcactgtt agccgtgggc agnctttgag 540  
 gctggtacca ttccagtgat gtggtaggag accagtcaac ccttaaaaaat atattgcaag 600  
 ccattcttga catgccccta cttgatagca cccataaaaa aaaaaactct ggcgtttctn 660  
 acnctaaan 669

<210> 988  
 <211> 749  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(749)  
 <223> n = A,T,C or G

<400> 988  
 ttattgnatc aactcttgtt ctttttgtag gatcccatcg attcgaattg gcacgaggcg 60  
 gtctccacgg gagccaccgg tcctgaaagc gcggagcatg ctttgtttgc ggaaacgaaa 120  
 gcgaatactt ctttccaagg agacttagga aagggcagac gctccactg cctcaggtgt 180

tccctggagg	accttcaagt	ggccgccgtg	tgggcggcta	gcgtcccgt	gctgcgctgg	240
ttccggagcc	cttcccttgc	ctctcccagg	gtccttctcc	cagcgctcgga	ggaagcccg	300
cgtctgcnan	tggagtgcgg	gtggtgggaa	tccctgggag	gattacgaaa	tccttaaagt	360
gggatttacc	aaacgcattc	ctttccgctc	acttccgttc	ccgcttaaca	aacgtgtttg	420
gaaacgtgtt	gctactgaaa	ggaaantggc	gctgggcttg	cattttctgt	ggctagtctg	480
cgagaaacag	ccctggaata	gggcctctat	tcttcccttg	agcatncctt	cccgggacct	540
gggaattgaa	actctagggt	aagcacttga	ancaggccca	agactgggtc	tctgaaatca	600
tggggctcta	ccctgagtta	actaagtttt	caaaaatgtt	actaggctaa	agacttgtgc	660
ttcaaagtgt	tanaaganag	ttgggaaaag	gcttttntaa	aggtaatttt	attggaaatg	720
ggatgttgtt	accgattcgg	cgtnttntt				749

<210> 989

<211> 839

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(839)

<223> n = A,T,C or G

<400> 989

tcttttntnt	gancccatcg	attcgcgggg	acggagctcg	gcgtgcttgc	tgctggaggg	60
ttntggccct	gcaaggctgt	gggctccgac	ctcaccggga	gtcgacagcg	agaggttnnn	120
cgaagagcga	ggttctgggc	gagcgtgaa	cgccggcccc	aagcaccocg	ggtctttaca	180
cagtccgct	ccacagactc	tgacgaagac	gtggatctgc	tctcgcttta	gctgctcgcg	240
gtcctccaga	tcatgtccgc	gactcctgcg	actccgcgcg	gaaaaaaaag	tttgccaggc	300
gtggactcaa	tgacctttcc	aagctgtgcg	cctcgctgcc	tggaccgggt	ctgagcgcg	360
ctgcccaggt	tgaccttttc	tggggaaggg	ctttctctac	gtgctgttgc	tcatgggttt	420
ttgtcggagc	cccaacgccc	ttccggncct	ttgattcctg	gaaanaaaaag	gggttggttc	480
cccttcaagc	anccccaanc	attccccggg	aaaaaatggg	ggagccaaaag	ggnttttggc	540
caanggcccc	aatnccccgn	ttcaaccctg	tgggttggn	antttnacn	aaattaactt	600
cctttcctnc	aaggcccgng	gaaaaaacnt	tttcccgggc	cacngggggg	gaaccaacct	660
tgcaangggg	ccttgatccn	ggtcttcaaa	cggcggttnc	caanaaccct	tgcncctatn	720
gaaacnnt	nggaacnct	ngggggttnt	tccccaatng	gngcncnaa	aaaacaaccc	780
cggttccaac	catttaaggg	aaaannggcg	ggggggcccc	aagggccctt	ttnggacnt	839

<210> 990

<211> 668

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(668)

<223> n = A,T,C or G

<400> 990

tatacatcaa	ctacttgctt	tttttgccag	atcccatcga	ttcgaattcg	gcacgaggtc	60
cgttgacact	tctctgactt	cagggtagtg	cgtgaggtag	gnagaggccc	gggttttagc	120
atgagaccag	tatgaaacgg	agggccacgg	gagggcccga	ggggagcagg	cgacnctcag	180
ctatgggtta	ccttctcttt	gggaccgatg	ggtgctgggg	aggatcccc	atttgcnttt	240
tagccgcacc	ccctgagccg	tctnctgttc	accctgggat	cctccagatc	ccagattctt	300
angaaggacc	ttggagatca	gctggaccag	cccctgactt	gcctgggttc	ggaagcggaa	360
acccaacggg	gcccttagct	gtcaaggatg	ctgnggggaag	agtggagcct	ctaaccgcag	420
acgctagacc	caatttggtg	cccattnggag	gagtgggant	ggtanatgca	ncaagaccac	480

tcctttcttg	gccaccatt	tctctacca	ttttactgc	agtgaactnc	tctcaggggtg	540
gggggctggt	cagaagcaac	ttccgctttt	nataactctc	acaaggtnct	ttgtcggaag	600
gtgtgccttg	ncttctaccc	cacnggggtg	gggagtgcga	cncccaaggg	gnnttttttt	660
tttttttt						668

<210> 991  
 <211> 728  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(728)  
 <223> n = A,T,C or G

ggnttnnnnn	nttttgnnt	nnatatanat	cagctacttg	ttctttttgc	aggatcccat	60
cgattcgaat	tccgcacgag	cttaaaagaa	aatgctatct	gggagctcca	acctgcaatt	120
aacctacaga	aggaaccttt	tgagaggctg	gtgcagcgct	tccggggaggc	agattaagaa	180
ctgacctaga	aacagaagtg	aagtttgaag	tctgctctct	gcaaagaggg	tgggagtggg	240
tggagaagag	gcttggttta	aaagccaaaa	acagaaaagta	aaaagaaatg	ggaaagtaaa	300
accaaagcag	caagtgactc	tcttctgatg	tgactttttc	atttttctcc	cccacatttc	360
agtgttagaa	agaaaaacgag	aggagctagg	gaaagaagga	gttggggaca	gaagactaag	420
atltcaacgt	gaaattccat	ttacaaaggc	tttactgcaa	acaatagcta	athtagtcct	480
gtaaacatgc	atltatcata	catttttaatt	ttaatatata	aaatactgca	tgtaaagtgt	540
ctgaactaaa	ggtagatagc	aatatgtagt	ttgccataaa	atgaatgcat	gtcttattct	600
tttccatagt	tcttcattaa	tgagacttgt	agtcaagaat	agattgaaga	taccattctc	660
cttgtgtagt	tcaaaaaaat	ctnctctggt	aatactgaaa	caactaattt	ttcttatttg	720
gttggtcc						728

<210> 992  
 <211> 718  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(718)  
 <223> n = A,T,C or G

gancannaaa	cncttnaacc	nccngctac	ttgnncttnn	tgcaggatcc	catcgattcg	60
aattcggcac	gaggccgcct	ccgcgcnntt	ttttggaggc	tnngcaaggg	aacttcgccca	120
cntccagatn	cttcgggcca	ttgggaangg	cagctntggc	aagggtgtgca	ttgngcagaa	180
gcgggacacg	gagaagatgt	acgccatgaa	gnacatgaac	aagcagcagt	gcacgcagcg	240
cgacgaggnc	cgcaacgtct	tccgggagct	ggagatcctg	cangagatcg	agcacgtntt	300
cctggtgaac	ctctggtact	ccttcaggac	gaggaggaca	tgttcatggt	cgtggacctg	360
ctactgggcg	gggacctgcg	ctaccacctg	cagcagaacg	tgacgntctc	cgaggacaca	420
gngaggctgn	acatctgcga	gatggcactg	gctctggact	acctgcgcgg	ccagcacatc	480
atncacagag	atgtcaagcc	ngacaacatt	ctcctggatg	agagaggaca	tgcacacctg	540
accgacttca	acattgccac	catcatcaan	gacggggagc	gggcgacggc	attaacaggc	600
accaagccgt	acatggctcc	ngagatcttc	cactcttttg	gcaacggngg	gaccggntac	660
tacatcgagg	tggactgntg	gtanggtggg	ggtgatggcc	tatganctgt	tgcganga	718

<210> 993  
 <211> 787

<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(787)  
<223> n = A,T,C or G

<400> 993  
tantcnancc ncnntcgant ccgtgctgtc gggtataacta ggaattcttt ataaacttaa 60  
taaatgaaag ctttttctct tataggcccg attctctagt ggacttctgg tgaaattatg 120  
tggctacctt ccattaatgt taatggaggt tatggatata aatccctcca tagtgatgga 180  
agaatgagcc ccagagagaa gaatgtttct aatgaatcac tggattgtga tataggatta 240  
acttgggtgc cctaatacca ttttttttcc tcttgaaagt ttaagggtctt atgttttagga 300  
actagtttct ctccacctta atccttttatt gtcaagtctg caataatggt aagaacagga 360  
aaaaaaaaat gtagattcct ggataggcac agttttttata ttaatgtaac tatataggca 420  
tagtttttat attaatgtaa ctatacagca cctatttttg tgttttacta ttacttggca 480  
gacatcttga gtgttttaca aggttatcgt atattttcact aataatcgtt gcttgataat 540  
ttgngcctg acagactgca gtttattatt tagtattaaa gctcctcagg aggttgagac 600  
aggagaatca cttgaacctg ggaggtggag gttgcantga gctgangccc gcaccactgg 660  
actccaacct gggcaacaga agtgagactc tgtctcaaag gaccnnnnn naaanaaaaa 720  
nnttctctggg gccgttttcc cntaaaccca acttgaaana acccttggtg agtttggcca 780  
anccct 787

<210> 994  
<211> 699  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(699)  
<223> n = A,T,C or G

<400> 994  
ganntcgta caagctactt gttctttttg caggatccca tcgattcgaa ttcggcacga 60  
gggtagctgg gactatagga acacaccacc acgcccggct aattttttat gttttttgta 120  
gagacagggg tttgccatgt tgcccaggct ggtcttgaac tgctgggttc aagcgatctg 180  
ttctgctcag cctcccaaag tctgtgatt acaggtgtga gctaccatgc ctggccccctt 240  
tttacagatt tgaggatggt tttatatcac ctcaatttct gagaacctca agctatgaac 300  
ttcgtttaag gtagttccaa gtttaaggta gaaccagttc caggttccta accccactcc 360  
cagatacctg gcagaatcaa agatgaatct ccggaggagg gcaccttctt cctaattttc 420  
aagggtcaat gagcagtaca gtcagaaata acaaagcgta cagggaacaa aaatgtgatg 480  
cgagaaacaa cagaagcaat gaatagaata aaagaaaacc agactcacia attctttgtg 540  
tattatgagt acagagacaa ataaaaacct atgcttattg ngttcataga aataaaaagta 600  
cccttataaa taccttcatg gaatgggtaa caattaaaaa gtggcttggc agatttttaag 660  
aagggttaaac aaaaaaanaa nnnnnnnnna aaanctcn 699

<210> 995  
<211> 762  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(762)

<223> n = A,T,C or G

<400> 995  
nttatcagct cttgtttcttt ttgcaggatc ccatcgatcc gaattcggca cgaggccact 60  
gccgtctccg ccgccactgg gccccagag cccagcccc agagcctagg aacctggggc 120  
ccgtctctcc cccctccagg ccatgaggat tctgcagtta atcctgcttg ctctggcaac 180  
agggcttgta gggggagaga ccaggatcat caaggggttc gaggcgcaag ctcactccca 240  
gccctggcag gcagccctgt tcgagaagac ggggtacttc tgtggggcga cgctcatcgc 300  
ccccagatgg ctcccgacag cagcccaactg cctcaagccc cgctacatag ttcacctggg 360  
gcagcacaac ctccagaagg aggagggtcg tgagcagacc cggacagcca ctgagtcctt 420  
ccccacccc ggcttcaaca acagcctccc caacaaagac caccgcaatg acatcatgct 480  
ggtgaagatg gcctcgccag tctccatcac ctgggctgtg cgacccctca ccctctcctc 540  
acgctgtgtc actgctggca ccagctgcct catttccggc tggggcaaca cgttcagccc 600  
ccaattacgc ctgcctnaac cttgcgatgc gccaacatac catcattgac accagaatgt 660  
gagaacgcct acccggaac atcacagaca ccatggtgtg tgccaacgtg cangaanggg 720  
gcaaggattc tggcagggtga cttcggggcc cttttggttg ta 762

<210> 996

<211> 668

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(668)

<223> n = A,T,C or G

<400> 996  
tatacatcaa ctacttggtc tttttgcagg atcccatcga ttccaattcg gcacgaggtc 60  
cggttgaccc tctctgactt cagggtgagt cgtgaggtag gnagaggccc ggggttagcg 120  
atgagaccag tatgaaacgg agggccacgg gagggcccga ggggagcagg cgacnctcag 180  
ctatgggtta ctttctcttt gggaccgatg ggtgctgggg aggatccccc atttgcnttt 240  
tagccgcacc ccctgagccg tctncttctg acctgggat cctccagatc ccagattctt 300  
angaaggacc ttggagatca gctggaccag ccctgactt gcctgggttc ggaagcggaa 360  
acccaacggt gcccttagct gtcaaggatg ctgnnggaag agtggagcct ctaaccgcag 420  
acgctagacc caatttggtg cccatnggag gaggggant ggtanatgca ncaagaccac 480  
tcctttcttg gccaccatt tctctcacca ttttactgc agtgaactnc tctcaggggtg 540  
gggggctggt cagaagcaac ttccgctttt nataactctc acaaggtnct ttgtcggaa 600  
gtgtgccttg ncttctaccc cagnggggtg gggagtgcga cnccaagggt gntttttttt 660  
tttttttt 668

<210> 997

<211> 720

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(720)

<223> n = A,T,C or G

<400> 997  
atcgcttgaa tccgggaggg ggagggtgca gtggggccgag ttagcaccat tgcactccag 60  
cctgggagac agagtgcagc tccgtctcaa aaaataataa atgaagtaac aatggtgaag 120  
tttgaagtaa ctcagggtgaa gtaacaccta agtggaatt ccatactcca ctcagtaaac 180  
catgcccgcc cccctcaaaa tggttttatc tgtcacactg gtgtcccatg caatggacaa 240



aggagacggt	tccgttagga	ccagcatctc	tttactcagg	tttttcaatc	ttggaactgc	300
tgacattttg	ggccaagtaa	ttctttgttg	cagggactgt	cctgtgcatt	tcaggatggt	360
taacagmatc	tttgtcctct	acccattagt	tgcttagtca	gaataatcag	aaaagtcccc	420
agacattgcc	aaatgcccc	tggagttgcc	tggttgccgt	ggttgagnat	cactatgctt	480
aaagaaaggg	gctcttggtt	gtaaatccca	gcacttttgg	gaaggccgan	gccggaagga	540
ttcacgaagg	tcaggagatt	cgagancatc	ctgggttaaca	cagtgaacc	ccatctctac	600
ttaaaatncc	aaaatttagc	tgggcatggg	gggcaagcgt	ctgtagtccc	agctactcgg	660
gaagcttaag	caagagaatg	tgcatgaaac	ccgggaggtg	gaactttcag	tgagccnaga	720

<210> 998

<211> 690

<212> DNA

<213> Homo sapiens

<400> 998

tgacagctgtg	cgtgaacggc	tgccccctga	gtgaacgcac	cgatgacggg	cagggccagg	60
tgtctgccat	cctgggacac	agcctgcctc	gcacctcctt	ggtgcaggcc	tggcctgggt	120
acacactgga	gactgccaac	actcaatgcc	atgagaagat	gccagtgaag	gacatctatt	180
tccagtcctg	tgtcttcgac	ctgctcacca	ctgggtgatgc	caactttact	gccgcagccc	240
acagtgcctt	ggaggatgtg	gaggccctgc	acccaaggaa	ggaacgctgg	cacattttcc	300
ccagcagtgg	caatgggact	ccccgtggag	gcagtgaattt	gtctgtcagt	ctaggactca	360
cctgcttgat	ccttatcgtg	ttttttagg	ggttgtcttt	tgttttggtt	tttwtatttt	420
tgtctataac	aaaattttta	aatatatatt	gtcataatat	attgagtaaa	agagtatata	480
tgtatatacc	atgtatatga	caggatgttt	gtcctgggac	acccaccaga	ttgtacatac	540
tgtgtttggc	tgttttcaca	tatgttggat	gtagtgttct	ttgattgtat	caattttggt	600
ttgcagttct	gtgaaatgtt	ttataatgtc	cctgcccagg	gacctgttag	aaagcacttt	660
attttttata	tattaaatat	ttatgtgtgt				690

<210> 999

<211> 1042

<212> DNA

<213> Homo sapiens

<400> 999

catttttcatt	atcagaacaa	caattagatg	cccgacgtcg	gggattggaa	gaatatctag	60
aaaaagtgtg	ttcaatacga	gtaattgggtg	agagtgcacat	catgcaggaa	ttcctatcag	120
aatccgatga	gaactacaat	ggtgtgtccg	acgtagagct	gagagtagca	ttaccagatg	180
gaacaacggg	tacagtccag	gttaaaaaga	acagtactac	agaccaagta	tatcaggcta	240
tgcgcagcaa	ggttggcatg	gacagtacga	cagtgaatta	ctttgcctta	tttgaagtga	300
tcagtcactc	ctttgtacgt	aaattggcac	ctaattgagtt	tcctcacaaa	ctctacattc	360
agaattatac	atcarctgtg	ccaggcacct	gcttgaccat	tcgaaagtgg	ctttttacaa	420
cagaagaaga	aattctctta	aatgacaatg	accttgctgt	tacctacttc	tttcatcagg	480
cagtcgatga	tgtgaagaaa	ggttacatca	aagcagaaga	aaagtcctat	caattacaga	540
agctatacga	acaaagaaaa	atgggtcatgt	acctcaacat	gctaaggact	tgtgaggggt	600
acaatgaaat	catctttccc	cactgtgcct	gtgactccag	gaggaagggg	cacgttatca	660
cagccatcag	catcacgcac	tttaaactkc	atgcctgcac	tgaagaagga	cagctggaga	720
accaggtaat	tgcatttgaa	tgggatgaga	tgacgcgatg	ggacacagat	gaagaagggg	780
tggccttctg	tttcgaatat	gcacgaggag	agaagaagcc	ccgatgggtt	aaaatcttca	840
cgccatattt	caattacatg	catgagtgtc	tcgagagggg	gttctgcgag	ctcaagtggg	900
gaaaagagaa	cattttccag	atggcgagggt	cacagcagag	agatgtggcc	acctagcctt	960
tccttatccc	cttcccttcc	cttcaccccc	atcctcttac	tcctttcatg	tcccatttca	1020
gacagagtaa	ccattaacaa	aa				1042

<210> 1000

<211> 382

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(382)

<223> n = A,T,C or G

<400> 1000

gggaggtcct	ccatgcgcag	tcattgagtcg	cttcaagttt	atcgatattg	gtatcaactt	60
gactgaccct	atgttcagag	gaatttatag	gggggttcaa	aagcatcaag	tttatgatta	120
caggtggaaa	tctacaagac	agtaaagatg	cactgcattt	ggcacaacaa	aatggtatcc	180
tcatatttct	tttaccaaaa	aaaaaatgaa	ttaagtaatt	ttgaagaagt	ctttctgaaa	240
actgcttcag	gtatgttttt	cagtacagtt	ggatgtcatc	ctacaagatg	tggatgaattt	300
gaaaagaata	accctgatct	ttacttaaa	gagttgctaa	atcttgctga	aaacaataaa	360
gggaaagtgt	nggcaatagg	aa				382

<210> 1001

<211> 409

<212> DNA

<213> Homo sapiens

<400> 1001

ccggactggg	aagatggacg	cagctactct	gacctacgac	actctccggt	ttgctgagtt	60
tgaagatttt	cctgagacct	cagagcccg	ttggatactg	gtagaaaaat	acagcatttt	120
cacagaaaag	gacgagatct	tgtctgatgt	ggcatctaga	ctttggttta	catacaggaa	180
aaactttcca	gccattgggg	ggacaggccc	cacctcggac	acaggctggg	gctgcagct	240
gcggtgtgga	cagatgatct	ttgcccgaag	cctgggtgtg	ggcacctagg	ccgagattgg	300
aggtggacac	aaaggaagag	gcagccagac	agctacttca	gcgtcctcaa	cgcattcatc	360
gacaggaagg	acagttacta	ctccattcac	cagatagcgc	aaatgggag		409

<210> 1002

<211> 441

<212> DNA

<213> Homo sapiens

<400> 1002

ccaggctggc	tggttttctt	ggtgaatgtt	ctccaggctg	gttatttttc	ttggtgaatg	60
taatgtactg	tctttttaga	gtaagttact	aagctgggta	ctaaatcagg	aatatttttag	120
ttataaaact	ttagattttt	aagaatattg	gcsaggcacg	gtggctcaca	cctgtaatcc	180
cagcacgttg	ggaggccaag	gcgggtggat	cacctgagat	cgggagttca	agaccagcct	240
ggcyaacatg	gtgaaaccy	gtctctacaa	awgaaaaaaa	tacaaaaatt	agcygggtgt	300
kgtggygyat	gcstgtaatc	ccarytaytt	gggwggtctga	rrcasgagaa	tygcttgarc	360
ytggargggc	gaggttgcmg	tgagcyraga	tckygccayt	gcactccagc	ctaggcaaca	420
agagcaaaac	tccatctcaa	a				441

<210> 1003

<211> 422

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(422)

<223> n = A,T,C or G

<400> 1003

gcatgttcgc	aatgtatgag	gaaggtgggg	ctctggggct	tccagcagat	tgaatcgccc	60
atgactgacc	tggatgcatc	ctttggcctg	accagctccc	caatcccagg	ccttgagggg	120
cgaccagagc	gcttacctct	ggtgcctgaa	tctcctcgga	ggatgatgac	cggagaccag	180
gatgccactt	tctccccagg	ctcagagcag	gctgaaaaga	gccctggtec	cattgtctct	240
cgaactcgga	gctgggactc	ttccagtcct	gttgaccatc	ctgagccaga	ggctgctagc	300
cccaccacca	gaactcgccc	agtgacccca	agcatgggaa	caggagacac	ccctggcctg	360
gaggtaccat	ctagccctct	gcggaaagcc	aagcgagcng	cctctgttct	tcacaattcg	420
ga						422

<210> 1004  
 <211> 805  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)..(805)  
 <223> n = A,T,C or G

<400> 1004						
aattcggcgc	gaggaagtac	tgtggctgta	tacagaacct	gtatgctggg	tgttcttttg	60
cgggtccaga	taaacataat	tggaggatat	atttacctgg	ataatgcagc	agttggcaaa	120
aatggcacta	caattcttgc	tccccagat	gtccaacagc	agtattttatc	aagtattcag	180
cacctacttg	gagatggcct	gacagaattg	atcactgtca	ttaaacaagc	tgtgcagaag	240
gttttaggaa	gtgtttctct	taaacattct	ttgtcccttt	tggacttgga	gcaaaaacta	300
aaagaaatca	gaaatctcgt	tgagcagcat	aagtcttctt	cttggattaa	taaagatgga	360
tccaaacctt	tattatgcca	ttatatgatg	ccagatgaag	aaactccatt	agcagtgcag	420
gcctgtggac	tttctcctcg	agacattacc	actattaaac	ttctcaatga	aactagagac	480
atgtttgaaa	gcccagattt	tagtacagtt	ttgaatacct	gtttaaaccg	aggttttagt	540
agacttctag	acaatatggc	tgagttcttt	cgacctactg	aacaggacct	gcaacatggg	600
aactctatga	atagtctttc	cagtgtcagc	ctgccttttag	ctaagataat	tccaatagta	660
aacggacaga	tccattcagt	ttgcagtga	acacctagtc	attttgtttc	aggatctggt	720
ggacatggga	gcaagtga	gganttgctg	ctaattgtga	tggaggcttt	taggtacccc	780
tcaggcaatc	gggagaattg	gnntt				805

<210> 1005  
 <211> 423  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)..(423)  
 <223> n = A,T,C or G

<400> 1005						
ctcctctgtc	cagaggtctt	caacaggaag	atgccagctg	gcaccactgc	actgtgatgg	60
gggcccctctc	ctctgctgac	tctgcgcttt	ctccaggcct	ccgctcagtg	atgagaccaa	120
gagatcggag	acaagcatgg	tgtctgctgt	tctgctgctt	ctccagaaaa	tccctgggac	180
acctttgttc	cagcctgggt	tccctgggctg	ggctcaggaa	agctgccaaa	ttcagtccta	240
tgttgggtcc	aagctgcccc	tgtgctgttt	ctgtcaagcc	aggtgtggac	attccaagtt	300
catatgcgtg	aacaaaagaa	aagaggaacc	cagtggatgt	aacagaaccg	actccagttg	360
aatgttttaga	tttttgctaa	actgttttct	ttttcccttt	ttngctgtng	tttgcattca	420
cgg						423

<210> 1006

<211> 813  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(813)  
 <223> n = A,T,C or G

```
<400> 1006
acccttttgac tttctgcagg aacccatcga ttcgctgggc agttcagtcc ctatgaatgt      60
ctctttctaca ggaggctacc ctgcccctgc taccctggga gaagcctcag ctttctgggc      120
agagtttgtc tccctgtcat ttatactctc aggctttata catttacasa gtaagttctc      180
cctcctggag gkttaaaagg aataatttca acagggtgaa ggccctggcac ggtggctcac      240
aactgtaatc caaggacttt rggaggctga ggtgggtgga tcacctgagg tcaggaattw      300
gagaccagcc tggccaactt ggtgaaaccc tgtctctact aaaaacaaaa attagccagg      360
tgagggtggca cacacctata gcccagcta ctgggggagg ctgaggcagg agaattgctt      420
gaacctggga ggcagaggtt acagtgagct gagatggcac cactgcactc cagcctaggt      480
gacaaagcag caagacgcag nctccaaaac anaacaacaa caacaaaaaa naaccgggaa      540
aacaggtaca gacaatagct gcctggagtt gtacagaaac ttgattgggt aacctggga      600
cctttccagg ctgtggccag cagttgacct tgcctgcctt tcctccattg ttttcccatg      660
tctgaccttc cctgtttgca aagcagtggg cctacttaca ngggtctctc tgggaaggag      720
caaggaggct cagtggcccc attcagcaat ttcgaagtc cctttaattg ttttgtgctt      780
ccaacctggt ttgttccccg ttcagatttc tcc                                     813
```

<210> 1007  
 <211> 844  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(844)  
 <223> n = A,T,C or G

```
<400> 1007
gctctgcggc gccgcgggtcc cggcaccccg ggccctgtgg ctcgggccatc gtatttcctcc      60
tttactcagg gggacagctg ggggtgaaggc gaagtcgacg aggaggaggg atgcgaccaa      120
gtggcccgcg acctgcgggc ggagttctcg gctggggcgt ggtcagagcc cagaaagcgc      180
tcgggtgctcc cgccggacgg gaacgggtcg cccgttctgc ccgataagcg caatgggtatc      240
tttcccgcgg ccgcgggcag cagagcccg cctcggcggt ggccgggtcca ggtcctctct      300
attctctgct cgtctctctt cgccattctt ctgccttcc tcctcgccat cgcctacttg      360
atcgttaaag agttgcatgc tkagaawttg aaaaatgaag atgatgtaga cactggacta      420
ttaggattct ggactctact tataatatcc ctaactgctg gattctcctg ttgcagcttt      480
tcttggacag tgacttactt tgattctttt gaaccaggaa tgtttcctcc tactcctctt      540
tcacctgcca ggttcaagaa actgactgga cattctttcc acatgggcta tagcatggcg      600
atthttgaatg gcatcgtagc tgctcttact gtagcatggt gcctcatgta aaccacact      660
ggagcgatat tgttggcaaa acttaatcat gattgttttg taataacmag aaggagcatc      720
actgtcttac tcaggaagga ctgaggaaac ctggctkgtt cattatgtag tttcaggata      780
ttttatccac caatccatcc ctccatttat ggggnaggac cnttttttaa aggnccattgt      840
tttt                                     844
```

<210> 1008  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(401)  
 <223> n = A,T,C or G

<400> 1008  
 gggagccaag gcctgccagg gagaggctct tggagtggcc cgaccgggaa ctggatcggg 60  
 tcaacagctt cctgagcagc cgtctgcagg agatcaaaaa cactgtcaaa gactccatcc 120  
 gtgccagctt cagtgtgtgt gagctcagca tggacagcaa tggcttctct aaggaggggg 180  
 ctgctgagcc tgagcctcag agtctacccc cctcaaacct cagtggctcc tcagagcagc 240  
 agcctgacat caaccttgac ctgtcccctt tgactttggg cccccctcag aaccacacgt 300  
 tacaagctcc aggcgagcca gccccaccat gggcagaaat gagaggcccn nccccnccat 360  
 ngnccgaggt gagggggccc ctccggtatc gccccgagaa c 401

<210> 1009  
 <211> 576  
 <212> DNA  
 <213> Homo sapiens

<400> 1009  
 gaccgcgggg tggttgggtc tagctattgc catggtacgt ttttatatgg aaaaaggaac 60  
 acacagaggt ttatataaaa gtattcagaa gacacttaaa tttttccaga catttgccct 120  
 gcttgagata gttcactggt taattggaat tgtacctact tctgtgattg tgactggggg 180  
 ccaagtgagt tcaagaatct ttatgggtgt gctcattact cacagtataa aaccaatcca 240  
 gaatgaagag agtgtgggtc tttttctggt cgcgtggact gtgacagaga tcaactcgcta 300  
 ttcccttctac acattcagcc ttcttgacca cttgccatac ttcattaaat gggccagrtg 360  
 gcgatawytt gcaktttak ywtctcywtrt cctgtgcatg ctkakttkst ggtgtaacky 420  
 cwkasaatta aaatwcgctg tttcagcccc acgatgccag aatgctgtta taggagggtat 480  
 aactgggtata actaataatt atacaagtta tgatttgtat tctaaaagct taatgatgag 540  
 agaggaatcg tattaataaa tattttgagt gaaatc 576

<210> 1010  
 <211> 429  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(429)  
 <223> n = A,T,C or G

<400> 1010  
 aattcggcac gagatcttgt tgagcttgta aaatgccagc aattttaaac taggactttt 60  
 ccccccataa gccaaggagg tagaattact aatacaaggg ttaaagaagg tagattttgt 120  
 tttcaatatt tgggtaatat tagaaagatt cttcccacag ggaagaacta gcaagtgtcc 180  
 caattttttc caaacgttgg ggaggggaaa attcactgta tcatgaaacc ctaagggttt 240  
 gttgcacttc ctgcttttta ggccctggata acagtatcac catccttatt tacagaaggg 300  
 taaaactgac tcttaatgag aaaagcttta taagttcaag ggctgtaaaa tatgaactac 360  
 ttaaggtcgt ttgccttcca tgggaacttg gctagactta naaaaagctg ttgttgngct 420  
 aatgtaaaaa 429

<210> 1011  
 <211> 755  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(755)  
 <223> n = A,T,C or G

<400> 1011  
 acgtctctcg gagcagttct gttaatccct gctgggagca gagactgcga aaagctgagt 60  
 ccgccgatcg tgcccgggac aaggctgect tccactcgcc gcactctacct ggtaggcggc 120  
 atgcgcacgg gcttagaggc ttgagagcct ctggaagaga aagggtccca ggaaggaaac 180  
 ctgcccccg cctaagtgtc ggcgcccaga tcaccacgaa ccccgccacct aggcgcccgc 240  
 caccaagttc caaagaagtc cgaggcgacc tgggagtcgg tcggatccca gccgagaaaa 300  
 gaaacaagca ggatagcaat tcttakggga gccaccctgg gagttttagg cagcgtttgc 360  
 ctttccttgg ttttcttcac caagccccat cctccccccg cataccacc ccagtcaaaa 420  
 gagtgggaga aaatgcacag ttcgaagtcg gtgagagcaa aaatgggtct agtaaatcaa 480  
 cccgtgggtg tagctaaaag gtttggggct gcaaagaaac aaactgtaag ttttgagcaa 540  
 caaacttttt cttcaatctg taatatgtcg aaatgggaag ggggtgttgc aaaagccaac 600  
 ttaccactgt tcaaacttag gcccgtttac aacatggggg aaagggcgta tttctttact 660  
 tattatcttc aacaacggtt aacatggntg ttttccttnc tttaccctng atgtttggaa 720  
 ctgncgattc ntectccggn tccattgttc cgggg 755

<210> 1012  
 <211> 871  
 <212> DNA  
 <213> Homo sapiens

<400> 1012  
 ggggtgttttg ctggagatca gtcaacagtt ctctgaagca gtgtcgatgg gcctatccac 60  
 gtcagggtctt catttctgat attgctttaa atagaaatga aattctatct gttacgcaag 120  
 atggagaagg atttagagg agatggtttg aagagaaaag aaagagttct gaaaagaaag 180  
 agattttatc aaaccttcac aattcctcat cagatgtgtc ttatgtctct gatataaata 240  
 gtgtgtatga aagaattcga cttgagaaac ttacctttgc acatagagct gttagtgtca 300  
 gcacagatcc aagtggatgc aactttgcaa tcctgcagtc agatcctaaa acaagccttt 360  
 atgaaattcc agctgtgtcc tcatcatcct tttttgaaga gtttggcaaa ctgttgaggg 420  
 aagcagatta aatgtacagc attcatgatg tgacatttca agttggcaat agatctcttc 480  
 cctgcacata aatatatctt ggccagtga tttctgatatt tttcagaaat tgtttctctc 540  
 agatggtaat acttcagaat ttacagatat ttaccagaaa gatgaagatt ctgcagggtg 600  
 ccactctctt gtggttagaga aggttcatcc tgacatgttt gaataccttt tacaatttat 660  
 atacacagat acttgtgact ttttaactca tggcttcaaa ccaagaatac acttaaacaa 720  
 aaaccagaa gaataatcagg gaactctgaa ttctcatttg aataaagtga atttccatga 780  
 agatgataac cagaagtctg catttgaagt ttacaaaagt aatcaagctc aaacagttag 840  
 tgagaggcag aagagcaaac ctaaattctg t 871

<210> 1013  
 <211> 498  
 <212> DNA  
 <213> Homo sapiens

<400> 1013  
 acagcactga gctagaggac gacgccatct attcagtga cgtccctgct ggcctttacc 60  
 ggatccggaa aggggtgtct gcctcagctg tgcccttcac tccctcctcc ccgctgctgt 120  
 cctgctccca ggagggaagc cgccacacga gcaagctttc ccgccacggc agtggagccg 180  
 acagtgacta tgagaacacg caaagtgggg acccactgct ggggctggaa gggaagaggt 240  
 ttctagagct gggcaaagag gaagacttcc acccagagct ggaaagcctg gatggagacc 300  
 tagatcctgg gcttcccagc acagaggatg tcatcttgaa gacagagcag gtcaccaaga 360  
 acattcagga actgttgcgg gcascocmag grwtswcatc ttgaagacag agcaggtcac 420  
 caagaacatt caggaactgt tgcgggcagc ccaggagttc aagcatgaca gcttcgtgcc 480

ctgctcagag aagatcca

498

<210> 1014

<211> 575

<212> DNA

<213> Homo sapiens

<400> 1014

gaccgcgggg	tgggtgggttc	tagctattgc	catggtacgt	ttttatatgg	aaaaaggaac	60
acacagaggt	ttatataaaa	gtattcagaa	gacacttaaa	tttttccaga	catttgcctt	120
gcttgagata	gttcaactgtt	taattggaat	tgtacctact	tctgtgattg	tgactggggg	180
ccaagtgagt	tcaagaatct	ttatgggtgtg	gctcattact	cacagtataa	aaccaatcca	240
gaatgaagag	agtgtgggtgc	tttttctggg	cgcggtggact	gtgacagaga	tcactcgcta	300
ttccttctac	acattcagcc	ttcttgacca	cttgccatac	ttcattaaat	gggccagrtg	360
gcgatawytt	gcaktttak	wtctcywtrt	cctgtgcatg	ctkakttkst	ggkgkaacky	420
cagagaatta	maattcgtgt	ttcagcccca	cgatgccaga	atgctgttat	aggaggtata	480
actggtataa	ctaataatta	tacaagttat	gatttgtatt	ctaaaagctt	aatgatgaga	540
gaggaatcgt	attaataaat	atthttgagt	g	aatc		575

<210> 1015

<211> 383

<212> DNA

<213> Homo sapiens

<400> 1015

gcaggcctca	tgggaggatt	tgatgaagat	gttaaagcga	aagtggagaa	ccttctcggg	60
atttccagcc	tggaaaaaac	ggaccctgtt	aggcaagcac	cctgcagccc	tcctgtgccc	120
cttcttcccc	tccccctccc	ccgcccgtgg	agacagctgt	tctcagcagg	gctctccgca	180
gggagggggc	cggtccttc	cctggcagca	acatccttgc	ccttgtcaca	caagtcagcc	240
tccatctgcg	cagctctgtg	gatgcgctgc	tggagggcaa	caggtatgtc	actggctggt	300
tcagccccta	ccaccgccag	cggaagctca	tccacccggt	catggttcag	cacatccagc	360
ccgcagcgct	cagcctcctg	gca				383

<210> 1016

<211> 545

<212> DNA

<213> Homo sapiens

<400> 1016

cagcctcctg	catcatcctc	gtcttcatct	tcctgcggta	ccccctcacc	gactactaag	60
gccgcgccag	cacggctgct	ggcggagaca	agcactgaga	catgtttatt	ctcatgggtc	120
ctgaaacgca	ggatcccatg	agggtggggc	agggcagggc	ttcttgctct	ggggccccct	180
tgagctgtga	actgggcagc	aaggccatca	gaagctgagt	acagcarggg	gcagtgagct	240
tggccctcag	tccaccccc	ccgcctcctg	gcctccrccc	tgctgtgtgc	tggggcctgg	300
gggcttctcc	cctcgctgct	gcaccctggc	ttccagcgtc	tgtgtccctg	ccctcacgtg	360
ccccctccca	ggctcctggg	gcccccttga	cctgacacct	agcaggaagg	gcttatgcaa	420
aattgtccca	ggttgggagg	actcactctg	tgtcccccga	ccctgcctcc	tccacgatgt	480
gaccccgctc	agagcccttg	tgtctgtgaa	ctttcaatga	aatacccatg	cagctccaaa	540
aatc						545

<210> 1017

<211> 530

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature  
 <222> (1)...(530)  
 <223> n = A,T,C or G

<400> 1017  
 aattcggcac gaggtggaag gacagcatcg atgaactctc ctggaggtca ctgcaaaggg 60  
 tggcagaccc tgctgaggtc cctgaatctg cagcctccag acaataaact gaaccttacc 120  
 cagaaggctg gcacaaagcc cccagctctg tgggtaggat ctccccctca ctgccctctc 180  
 tctgagaaag gacagcacac ccttgggaaa agggggagga gagagactga gccacaaatc 240  
 ccactgctgg aaattaccta ttcagcagag aagctgggtc ttgggctgtg aatcactgca 300  
 ggctcctga taagctgctg cctccagccc tgcacagctg tctgttgaga gataacagcc 360  
 tcataagctt ctctgcccaa ctccaagcca gctggggggg ggggggtgctg ctgtgtgctg 420  
 gaagarctct ggtgagttgg ggggtggcata cagccccagg atctcagaag cagatctcat 480  
 cccatgcaac tcagcagcnc ccctggaaag ggggagatgc ggnagnatgt 530

<210> 1018  
 <211> 610  
 <212> DNA  
 <213> Homo sapiens

<400> 1018  
 cagaaattcc tgttctccct gagccagcat atcaactggg tccgctgtgc caagttctcc 60  
 cccgacgggc ggctcatcgt gtctgccagt gatgacaaga ctgttaagct gtgggacaag 120  
 accagccggg aatgtgtcca ctctgtattgt gagcatggcg gctttgtcac ctatgtggac 180  
 ttccacccca gtgggacgtg cattgccgct gccggcatgg acaacacagt gaaggtgtgg 240  
 gacgtgcgga ctcaccggct gctgcagcat tatcagttgc acagtgcagc agtgaacggg 300  
 ctctctttcc acccgtcggg aaactacctg atcacagcct ycagtgactc aacctgaag 360  
 atcctggacc tgatggaggg ccggctgctc tacacactcc acgggcatca gggaccagcc 420  
 accactgttg ccttttcaag aacgggggag tattttgctt ctggaggctc tgatgaacaa 480  
 gtgatggttt ggaagagtaa ctttgatatt gttgatcatg gagaagtcac gaaagtgccg 540  
 agggccccag ccacactkgc cagctccatg gggaatctgc cagaagtgga cttccctgtc 600  
 cccccaggca 610

<210> 1019  
 <211> 843  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(843)  
 <223> n = A,T,C or G

<400> 1019  
 gactcccag gatcgggtca tcggcacaaa aggagacatt gcccacattt atgatattca 60  
 gactggcaac aagctgttga ctctgtttta cccagatctt gccacaact acaagaggaa 120  
 ctgtgccacc tttaatccta cagatgatct tgtcttaaat gatggcgctc tctgggatgt 180  
 ccgctctgca caggccatcc acaagtttga caagttcaat atgaacatca gtggtgtttt 240  
 ccatccaaat ggactggagg tgatcattaa tactgagaat ttgggacctt cgaacttttc 300  
 atcttttgca tactgttccc gctctggatc agtgtcgcgt ggtgttcaat cacacgggaa 360  
 cagtgatgta tggagctatg ttgcaggcag atgatgaaga tgacttaatg gaagagagga 420  
 tgaaaagccc ctttgggtca atccttccga acatttaatg caacntgact acaaacctat 480  
 agcaaccatt gatgtgaacg gaacatyttt gacctgtgta cagacaccaa agactgctat 540  
 cttgctgtca ttgagaatca aggcagcatg gatgccctga acatggacac agtatgcagg 600  
 ctgtatgaag tgggcaggca gcgtctggca gaggatgagg atgaagagga ggaccaggaa 660  
 gaggaagaac aggaggaaga agatgatgat gaagatgatg atgacmccga tgatttagat 720



gagcttgaca ctgaccagtt gctggaggcg gagttggagg aggacgncaa taatgagaac 780  
gcaggggaag atgggggncaa tgaacttctc tcccttctga tgtaggagct agcaaaccctt 840  
tct 843

<210> 1020  
<211> 458  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(458)  
<223> n = A,T,C or G

<400> 1020  
ggggccacca atctggccga cctcaggctc tgggaaacag gctgccctcg tccctctgcc 60  
tgtgggtggc tgaggcttct cagcccatct ccagttctct gcagcaaagg ccctctgttt 120  
ctgtcctgca gtgggggccc tttcgtggtt aaacatgtcc ctccctctct cacagaactg 180  
agtacctatt gcggctgggc ccgcccaccc ctgtgtccct gcacccatgg gttctaccac 240  
ctgattcggc tgcagctgtc actgtcccgt gtctgtctct tgtcaggcct ctgagtgtctg 300  
cagacgtatt aacatatcac cgctagttag tggaaagtct tgtttcttat tagaatattt 360  
tgtgtaggca cagggtkscg cagcacctgt ctatagcaac cccagtgtcc tcacagtgca 420  
cgtgagccgt gaccgcagnc aacgttgagt cgcgcctg 458

<210> 1021  
<211> 389  
<212> DNA  
<213> Homo sapiens

<400> 1021  
ctctctccca ttctgttttg ccagatagct gatctggcca atgaagatac tccacagttg 60  
tatgtggcct gtggtagggg accccgatca tctctgagag tcctaagaca tggacttgag 120  
gtgtcagaaa tggctgtttc tgagctacct ggtaaccca acgctgtctg gacagtgcgt 180  
cgacacattg aagatgagtt tgatgcctac atcattgtgt ctttcgtgaa tgccacccta 240  
gtgttgtcca ttggagaaac tgtagaagaa gtgactgact ctgggttcct ggggaccacc 300  
ccgaccttgt cctgtctcct attaggagat gatgccttgg tgcaggctca tccagatggc 360  
attcggcaca tacgagcaga caagagagt 389

<210> 1022  
<211> 869  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(869)  
<223> n = A,T,C or G

<400> 1022  
gcacctccag agcatgaggc tctaagggga catgagtaaa gcatgtctgt gacctagtga 60  
ggaagggaga ggccagctgc actcctgcac ggggttccta gctgcagaag ggtcccgcc 120  
aggccgaggg gaaacacctg atagcagaag aggcctggat gcacacctgg cacgccgagg 180  
ctctccgccc agacacagtg ctccatgtca gccctgcac ctggggtgtg tgattcacgt 240  
gcacagatgc cacaatcctg caccaatata ccacagatgg gggaaggggtg agaggaaggg 300  
gsaagtgatg tgtaactgct caagagatgc ttaaacctcc atagagagga gccgggcgca 360  
ggggcatctg tgtgtcccg caccactgac agcagggaag ggtggctggc tggctccctg 420

gcatcagtgg	tttggtttaa	gctccagagg	ktcttattgc	cattgtcttt	tcctctgccc	480
cttgagccag	cctaaggcct	ggangtctgt	ttctttaagg	cggatgaact	gacatgctcc	540
taccaatgac	caaggctctg	ggcaaagggt	cctcacagta	tccttgagaa	ggtgggcatg	600
gaagtgccaa	tttctcaggt	acagaaacct	tcagagagga	taaatagctt	tgccctgtag	660
aagcaggact	gaaacccttg	tccgcctgac	tcctccagct	actctgccc	ctgtagcccc	720
ctgccttact	tgtcctggca	aaccctcaac	atcctgtata	ccttaaatat	ccaagagggc	780
aagagagaaa	ggcttaaaga	taagtaattt	ttaaggacct	tataatattt	ttaagaagta	840
cccaatagtg	gcgtgnaatg	ccaaaaaaa				869

<210> 1023

<211> 706

<212> DNA

<213> Homo sapiens

<400> 1023

gcaaaataca	ctttcaaatt	aagaatgggt	ctgtgatgtc	acatctagga	gcacctaccc	60
atggacagac	atgtcttccc	atggaggagg	ctttcgagct	acccttggat	gattgtgaag	120
tgattgaaac	tgcagcagcg	tccgaagtga	ttaaataatga	gyatcwtgtc	ttatgcagay	180
tsctstagct	ascawgtgcs	tgtwcttwwc	ttyagrrctc	tgmagmtkyt	tagatgggag	240
acctttaact	ctgaaggaca	tatgggaagg	agttcatgag	tgctataaga	tgcgactgct	300
acagggacca	tgggacacta	ttacgcaaca	ggaacatcca	atacttgggc	aacctttttt	360
tgtacttcat	ccctgcaaga	cgaatgaatt	catgactcct	gtattaaaga	attctcagaa	420
aatcaataag	gccaaaagag	aaacattggc	tactttgaca	accttaaagc	ggactccagg	480
aatatcacca	acagcatgac	ctttgcgacc	aaatccagca	accagaactt	catcattttc	540
ctggaataaa	ataagaagtt	tatttctggg	gttggtggcg	atcacaaaaa	tactttcatg	600
tgaggaaact	cccttgcatc	agataaaaa	gtgagggagg	ccacccaac	aacagaaggt	660
acgatagagt	tgaaatactc	acctcaataa	agttcaagca	accgtc		706

<210> 1024

<211> 403

<212> DNA

<213> Homo sapiens

<400> 1024

ctggcccacc	ccctcctgga	cccctccttc	ggccccagaa	ccctggggcc	aacctcagc	60
tgcaagcct	cctcctcaac	ccaccaccgc	cgcagactgg	ggtgccccca	ccccaggcct	120
ccctccacca	cctccagcca	ccaggggctc	ctgcgctgct	gcctccgccg	caccagggcc	180
tggggcagcc	ccagttgggg	ccccactcc	tgcattccacc	acctgcccag	tcctggccccg	240
cacaacttcc	ccctcgggct	ccactgccag	gtcagatgct	gctgagcggg	ggtccccggg	300
gcccgggtccc	ccagccgggc	ctgcagccca	gcgtcatgga	ggacgacatc	ctcatggatc	360
tcattctgaat	ccccaacacc	caataaagtt	cctttttaac	acc		403

<210> 1025

<211> 405

<212> DNA

<213> Homo sapiens

<400> 1025

ggccccgcgg	ggcagccatg	cctggccgtc	tgctgcgggg	cctgtggcag	cgatggcgcc	60
gttacaagta	ccgcttcgtt	ccctggatcg	cactgaacct	aagccacaac	ccgaggtaca	120
gtatatcaga	agtatgagcc	gatctttttc	cagtcatttg	gaaatccgtt	tatttttaga	180
tgcttgatg	gggtactcat	tgatgggaat	gacaaaggga	tatcaaaaagt	tgtgtacaga	240
tcttgcaatg	ggagggatcg	actcggccct	ttaaaaatga	gtgatagtac	atggctaacg	300
tcagaaattc	ataaccctct	ggctgtggga	cagtatgtca	acaattgttc	caatgacaga	360
gcagctaattg	tctgttatca	ggaatttgat	gtgcctgcag	tttcc		405

<210> 1026  
 <211> 582  
 <212> DNA  
 <213> Homo sapiens

```
<400> 1026
cttctgctgg gactggccat tatctcaggg cttctgttgc attatagccc tgtgttctgc      60
tggaagtag  gaaacacttc caggggacaa aacatggatg atgtcatggg tttggtggat      120
tcagaagagg aagaggagga ggaggaggag gaagatgctg cagtagggga acaggaggga      180
gcacgtgaga gagaggagtt gccaaaagaa atacctaagc aggaccacat tsacagagtg      240
accgccttgg tgaatgggaa catagaacag atgggaaatg gattccagga tctwcaagat      300
gacagcagts aggagcaaag tgacattgtt caagaagaag acaggccagt ctgaagaaga      360
ggatgggtcca tggttgtctt gctctgaaag cttggagagc tacattgaag acgagctctt      420
cattcagctt  tgactccact ctgccacctg gcgggggctt gcactaacia tgtttgggtc      480
tcagcaaaaa  acaaaaccaa gcacacacat ctttccttcc atgtattgaa aaacattggg      540
ttgatttgct  ctaagttttc ccaatgatgt ttaaaagctt tg                        582
```

<210> 1027  
 <211> 1101  
 <212> DNA  
 <213> Homo sapiens

```
<400> 1027
caagacaatt ataggagatt ttcagaagga acagaaaaaa tttgttgaag agcaacatac      60
aaagaagtca gaagcagctg tgcccccatt ggttgacact aacgatgaag aaacaattca      120
acaacaaatt ttggccttat cagctgacaa gaggaatttc cttcgtgacc ctccggctgg      180
cgtgcaattt aatttcgact ttgatcagat gtaccccgct gccctggtca tgctccagga      240
ggatgagctg ctaagcaaga tgagatttgc cctcgcttcc aaacttgtga aggaagaagt      300
gttctggagg aactactttt accgcgtctc cctgattaag cagtcagccc asctcacggs      360
cctggctgcc caacagcagg ccgcagggaa gggaggagaa gagcaatggc agagagcaag      420
atgtgccgct gccagaggca gtacggccca aaacgccacc cgttgtaatc aaatctcagc      480
ttaaactcoa agaggatgag gaagaaattt ctactagccc aggtgtttct gagtttgtca      540
gtgatgcctt cgatgcctgt aacctaaatc aggaagatct aaggaaagaa atggagcaac      600
tagtgcttga caaaaagcaa gaggagacag ccgtactgga agaggattct gcagattggg      660
aaaaagaact gcagcaggaa cttcaagaat atgaagtggg gacagaatct gaaaaacgag      720
atgaaaactg ggataaggaa atagagaaaa tgcttcaaga ggaaaattag ctgttcctga      780
aatagaagaa taatccttaa cagtctgcaa actgacatta aattctagat gttgacaatt      840
actgaatcag aaggcatgaa agagtataat tttatgaaat tcaaaattat tcttttttca      900
agttgaaact tgccctctct actttaaaaa agtatataga acagttactt ctaataatca      960
gaaagagatg ttttatagaa catttcttta atataaagtt agagatgtct tcataggcag      1020
tatggctatc tttgccacag aaacataagt aaaattttag agttctgttt tccatgaggt      1080
caaaaatata atttatctc c                        1101
```

<210> 1028  
 <211> 1471  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(1471)  
 <223> n = A,T,C or G

```
<400> 1028
gtctttcact cttctggcat cggtgggtttt acttcttcga ttgaaccctg cttcctcgac      60
ccccctggga ggccgccttc ttcaggcgcc tcccttctct ccacgagctc gctctgacag      120
```

ctgaggaact	ggcaagatcc	tgctacccag	aggggtgaatg	ggtatctttc	ccggartrrry	180
sytwmykwyt	strrgagsyk	magyttscma	cgkcgkccga	tgatysyrag	crgacaccag	240
aaaagtacca	ctgtaagtca	tgagatgtct	ggctctgaatt	ggaaaccctt	tgtatattggc	300
ggccttgccct	ctatcgtggc	tgagtttggg	actttccctg	tggaccttac	caaaacacga	360
cttcaggtttc	aaggccmaag	cattgatgcc	cgtttcaaag	agataaaata	tagagggatg	420
ttccatgcgc	tgtttcgcat	ctgtaaagag	gaagggtgat	tggctctcta	ttcaggaatt	480
gctcctgcgt	tgctaagaca	agcatcatat	ggcaccatta	aaattgggat	ttaccaaagc	540
ttgaagcgct	tatttcgtag	aacgtttaga	agattcgaat	gcaggctcaa	ggaagcttgt	600
tccaagggag	catgattggg	agctttatcg	atatataccn	aacnagaagg	caccaggggt	660
ctgtggaggg	gtgtgggtcc	cactgctcag	cgtgctgcca	tccgttgtag	gagtagagct	720
accagtctat	gatattacta	agaagcattt	aataattgtca	ggaatgatgg	gcgatacaat	780
tttaactcac	ttcgtttcca	gctttacatg	tggtttggct	ggggctctgg	cctccaaccc	840
ggttgatgtg	gttcgaactc	gcattgatgaa	ccagagggca	atcgtgggac	atgtggatct	900
ctataagggc	actgttgatg	gtattttaaa	gatgtggaaa	catgagggct	tttttgcact	960
ctataaagga	ttttggccaa	actggcttcg	gcttggaccc	tggaaacatca	ttttttttat	1020
tacatacgag	cagctaaaga	ggcttcaa	ctaagaactg	aattatatgt	gagcccagcc	1080
ctgccagcct	ttctactcct	ttgccctttt	cccgtgttct	aatgtatatt	gacaatgttg	1140
taagtgttta	ccaagccgtt	ggtctcctaa	gggcctcctg	atggaagaac	agtgggggtg	1200
ttcaaagtta	tttctatggt	tgtgttacca	tgtaaacttt	tccccgagag	aaagtgttaa	1260
cattgagact	ctggccccag	attggatatct	tctatgaaga	tggatactga	tgggtgacat	1320
tgaaaacggc	ctgctttcca	aatgtgggta	aatgtaattg	gttagcccca	gacttgggct	1380
agagcagaag	gcataggcca	gggtggttat	tgctatatgt	gttacagacc	tcgggttctca	1440
ttaaagtatt	tattggcaga	atcacaaaaa	a			1471

<210> 1029

<211> 912

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(912)

<223> n = A,T,C or G

<400> 1029

tatgagnnat	gnnaccttca	aacaagctac	ttgttctttt	tgcaggatcc	catcgattcg	60
ccagctcata	ctttccctcg	ctgtccctcc	cgcactcctt	aggcaagatt	tcccagtaaa	120
gattttctgt	gcgtatttta	aaagtcgtgt	taatactcat	gataattatt	agggacctgg	180
cagcgtgatt	ggagtatgga	tgtttccgta	aaagctggaa	ttccgtaaaa	gcattgacgc	240
agcccctaca	ctccatccca	accaagaaac	tgcatttccct	ggggccagggt	gggagctgcc	300
tttgccccac	tgccctccct	gttctgctct	ctcagtcaac	atgtggaaat	ccaaggagga	360
caaagactcc	agccacgctg	cttaaatagg	gctcctctct	cctctctctc	tctctaggtg	420
gtaagggttg	ggattaagtc	caggtacaga	agcaaaaactt	tttttctaag	gataaacatc	480
tcttccaagg	ggatggagag	tgggtccctc	aacaaagtcc	ctgtccagtc	acctttccat	540
cagggcacta	gccanggaat	gactcctcac	actttcacct	ttactgattt	ccagaggaaa	600
gctagaggat	ctagttcaag	aggcaagaag	atctggccct	caattagcta	aatgtagayg	660
ctgcctaaca	gttccctcct	caaaggccac	cttgggtgctg	tggggggcccc	ttgcctcttc	720
ccttcccact	ggtgcattac	aaaacagtgt	tcttttgaaa	tgttcatcag	gaataggctt	780
ttttaaaaaa	tgttgtgtat	ctgtatatag	tattgtgatg	tctgaatgac	aatgtactga	840
atgcaaaaag	gaaaaaaacc	cacaaacatg	tttttaaaat	aaaatatctt	tttttgcctt	900
gaaaaaaaaa	aa					912

<210> 1030

<211> 765

<212> DNA

<213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(765)  
 <223> n = A,T,C or G

<400> 1030  
 ggaaggaag gcaggacatg ggccggggccc tggcccagga cggcccaaact ccaaaaacct 60  
 tcagcccaag atccaggaat atgaattcac tgatgacct atcgacgtgc cacggatccc 120  
 caaaaatgat gcccccaaca ggttctgggc ttcagtggag ccctactgtg ctgacatcac 180  
 cagcgaggag gtccgcacac ttgaggagtt actgaagccc ccagaagatg aggctgagca 240  
 ttacaagatc ccacctctgg ggaagcacta ctcccagcgc tggggccagg aggacctgct 300  
 ggaggagcag aaggatgggg cccgggcagc ggctgtggct gacaagaaga aaggcctcat 360  
 ggggcactga ccgaactgga cactaaagat gtggatgccc tgctgaagaa gtctgaggcc 420  
 cagcatgaac agccggaaga tggatgcccc tttggtgccc tgacgcagcg cctcctgcag 480  
 gccctggtgg aggaaaatat tatttcccc atggaggatt ctctattcc tgacatgtct 540  
 gggaaagaat caggggctga cggggcaagc acctccccct gcaatcagaa caagcccttc 600  
 agtgtgccgc atactaagtc cctggagagc cgcacaaagg atggagctaa ttgccagggg 660  
 cctttttgga gtctgaggac cgccccgcag aggactccga ggatgagggt ccttgcttga 720  
 gctttcngca aacgggcaag gctnaagctg gaaggcactt tagtt 765

<210> 1031  
 <211> 1033  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(1033)  
 <223> n = A,T,C or G

<400> 1031  
 ccttnnnnnn nnntttggna ctctanaata caagctactt gttctttttg caggatccca 60  
 tcgattcggt cagcctagca gccatgatgc cctcggaacc tggccctatg gtatggatgt 120  
 gaggactacg cactggctgc cctgagcccc gggctggaaa tcatcttttg ctgccaaagga 180  
 tctggaccta ttttgagtg gagagtcag gttaaaattc ccagcccggc ccaggtagcg 240  
 gaatcccagc attttgtgag gccgaggcag ggggatcacc tgaggtcagg agtctctact 300  
 aaaaatacaa aaattagaca ggyrygswgg tgggcgccac tcaggagggt gaggcaggag 360  
 aatcacttga acccgggagg cagagggtgc agtgagccag atcatgctgc tgcactccag 420  
 cccggccgct caccgtgtgt gttgctgggt gctggggctg tgacttatcc cctctccttt 480  
 agccttgcca taagtgtagt atcctatgag gctgagattg ggaaagggtta catgcaggta 540  
 agccagtgga cgtggccgat gcttcaggct ccttcagacc aggtccagca gtgttaccat 600  
 ctgcttctcc tgggaggaca aaccaggcac ccccaccatg aaggggctgc aggcaccatg 660  
 aactatgtta acaaccccag tctgtactac agaaarggct gcagccacat gagaattcag 720  
 tccacacaag ccccatggcc gtgttcccca ctccagccac ngrgctcagg gagccmatct 780  
 ggcgctaagg ggaactgctg ggggtgtgggt gacacctgcc tttggcggtc tgccttgggg 840  
 aggtttcttg ttttgttacg ggggtggaaga ataggacctg ggggtctcgg atgcaacctg 900  
 cagaccccg gtctcaccca acccagggt ctgcctccca gaccagaanc ggcattggcct 960  
 ggtecntctn cgagggtgct gctctgtaaa tatcaaggga ttacaacttt aataataaag 1020  
 cagaacttga aaa 1033

<210> 1032  
 <211> 517  
 <212> DNA  
 <213> Homo sapiens

<220>

<221> misc\_feature  
 <222> (1)...(517)  
 <223> n = A,T,C or G

<400> 1032  
 aattcggcac gagacagctt tagaaataga taatgcgggtt gtggcaaata gcctaattga 60  
 catgagaggc atagagacag tgctactaat caaaaataat tctgtagctc gtgcagtaat 120  
 gcagtcccaa aagccaccca aaaattgtag agaagctttt actgctgatg gtgatcaagt 180  
 ttttgcagga cgttattatt catctgaaaa tacaagacct aagttcctaa gcagagatgt 240  
 ggattctgaa ataagtgact tggagaatga gggtgaaaat aagacggccc agatattaaa 300  
 tcttcagcaa catttatctr cccttgaaaa agatattaaa cacaatgagg aacttcttaa 360  
 aaggtgccaa ctacattatw aagaactaaa gatgaaaata agaaaaata tttctgaaat 420  
 tcgggaactt gagaacatag aagaacacca gtctgtagat attgcaactt tggaagatga 480  
 agctcaggaa aataaaaagcc aaatgnaaat gggttgag 517

<210> 1033  
 <211> 968  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(968)  
 <223> n = A,T,C or G

<400> 1033  
 gagactttca attttggaag caaactgagc tattcttacc agccaaagtt atactaaata 60  
 agagacttgg gggagcaaata gtttttcagc cttcagaaat gaaagttaag gatttttagca 120  
 ctaggtaaaa ttcagtataa taggctgaag tggagtaagt gaaaacctgc cttttgccac 180  
 tcttaaaaaat tgtgcccaaa atataaaagt gtggaacttt agaacttgga ataattttat 240  
 tgcagtcttc cattacatgg aaatagcata tctaatatct aggttacttg agagaccagc 300  
 taatcatctc tgttgcacat gtttaattgg caaaaagcaa ttcattgataa ataaaattac 360  
 tgctttccat ctactgggta aaatgactat tgaaaataagt atgaatgtgg tcagaggatt 420  
 atagttgaga gtgaagtact atgtgtgagt tatagatctc tcgaattata tttatagatg 480  
 cagtgtcctg cccagttttg tttgcctcct acattttact gtaaaatatt tattgtcttc 540  
 tagccttgag cctctgaggg tcagtaagtg aagtacagat agcaaaattt tactaccycg 600  
 ttaacccttt tcttaaaaata ttctctatct tnctatgtct ctytctgaca tagtaatccc 660  
 aaaggattgt gttactcccc gtgaaagtta ttacttttcc tttaaaaatg gttttataat 720  
 aagactgttt aaaacctttc cagtattggg acatcttggc ttctggccca aaccccaagc 780  
 agaaaagaaa atggaataat ggagcattgt ttttccacat tagtattagg gcatcagatt 840  
 cttagtgaac cactataatt aagtagttat aattaaataa ctgttcttca tactnaggac 900  
 tcttaataca tttctttaag acttgtaagt ntaattgtaa agcttgtaa ctgttttata 960  
 tactaaag 968

<210> 1034  
 <211> 841  
 <212> DNA  
 <213> Homo sapiens

<400> 1034  
 ggatgaggcg ctgcagtctc tgcgctttcg acgcccggcg ggggcccagg cggctgatgc 60  
 gtgtgggcct cgcgctgata ttgggtgggc acgtgaacct gctgctgggg gccgtgctgc 120  
 atggcaccgt cctgcggcac gtggccaatc cccgcggcgc tgtcacgccg gagtacaccg 180  
 tagccaatgt catctctgtc ggctcggggc tgctgagcgt ttccgtggga cttgtggccc 240  
 tcctggcgtc caggaacctt cttegccctc cactgcactg ggtcctgctg gcaactagctc 300  
 tgggtgaacct gctcttgtcc gttgcctgct ccctgggcct ccttcttgcg gtgtcactca 360

ctgtggccca	acggtggccg	ccgccttatt	gctgactgcc	accccaggac	tgctggatcc	420
tctggtacca	ctggatgagg	ggccgggaca	tactgactgc	ccctttgacc	ccacaagaat	480
ctatgataca	gccttggtct	tctggatccc	ttctttgctc	atgtctgcag	gggaggctgc	540
tctatctggt	tactgctgtg	tggctgcact	cactctacgt	ggagttgggc	cctgcaggaa	600
ggacggactt	caggggcagc	tagaggaaat	gacagagctt	gaatctccta	aatgtaaaag	660
gcaggaaaaat	gagcagctac	tggatcaaaa	tcaagaaatc	cgggcatcac	agagaagtgt	720
ggttttaggac	aggtgctgtt	ccgagactca	gtcctaaagg	gttttttttc	ccactaagca	780
aggggcccctg	acctcgggat	gagataacaa	attgtaataa	agtaacttct	cttttcttct	840
a						841

<210> 1035  
 <211> 662  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(662)  
 <223> n = A,T,C or G

<400> 1035	
ctgttttttc	cagcccgtaa
ctctgtgtga	cggactcggc
aggagaactg	agaagctcct
aaccattatg	agttgtgaga
ggcactgtgg	tcagttcacc
aaagttaatt	gcacaaacct
cagcttccca	gacaatcarc
ttcctgtctg	catccataag
ggtgcagggg	aggcccatg
aaagagggat	tgccctttatt
tcattaggga	ggggagaaaac
tt	

<210> 1036  
 <211> 724  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(724)  
 <223> n = A,T,C or G

<400> 1036	
ttggttncta	tacacaagct
ttagtgggaa	atcagatctt
aatgtaataa	gtgtgagaaa
ttcatactgg	ggagaagccc
cagaccttat	cgtgcaccag
gtatgagaag	ttttactcgg
cttttaaatg	ccttgaatat
agagaattca	catggaagag
aggaatggac	tttgttgccc
aatacactgt	atgtgataaa
tacacattgg	tgaaaaaccg

ctccccatgc gtcagaagcc tcacagatgt cttgaccagg cgangaagct gtaataccaa 720  
tatt 724

<210> 1037  
<211> 385  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(385)  
<223> n = A,T,C or G

<400> 1037  
ctgcgaagat ggccgctgcg tcctcatcgg attccgacgc ctgcggagct gagagcaatg 60  
aggccaattc gaagtgggtg gatgcgcaact acgacccaat ggccaatatc cacacctttt 120  
ctgcctgcct agcgctggca gatttacatg gggatgggga atacaagtgt ctctctagaa 180  
gtgcctgggtg tggaagaaat gtttgctgaa tgaataataa aaacatcaac tgccacttat 240  
tcctcagtag cacttacagg ttctgtaact cattatctca cttgattttc accacatacc 300  
atgaaagtat caccattctg caagcgggaa acctgagatt cagaaagntg gtggtagggg 360  
accttgcccc tggtagggcag caagc 385

<210> 1038  
<211> 393  
<212> DNA  
<213> Homo sapiens

<400> 1038  
gcggcttcct tccggctctg cgctcctggc tggggctgct gggcgggctgg ggccgggtcc 60  
ccgcacccgg ctctcaagtc cgggattacc cgcagggcct gagaagcgc ttgcccccta 120  
cagcctctcg agccagccct tggctcggaa ttggagaatg gtcctcatc ttaccagat 180  
ctcacacgcc gtccccgctc ccgatcccag ggggtgacag gcgcgcacgc ctttcaaaca 240  
cgtgttaaaa tccaagacgt cgtctcaaat gccagagatt tgcgggaatg ctcttggaa 300  
gcctcaaaat cgccgcaaga acagtccact ttggaaagtg aagaatggaa tccttgggaa 360  
ggagatgaaa aaaatgagca acaacacaga ttt 393

<210> 1039  
<211> 900  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(900)  
<223> n = A,T,C or G

<400> 1039  
gagatgatgg ctgatgaaga ggaagaagtc aagccgatct tgcagaaatt gcaggaactc 60  
gtggatcagc tctactcatt tcgagactgc tatttcgaga cacatagtgt tgaggatgca 120  
tgaggaggaag caacaggatg tgcggaagga gatggagaaa accctacagc agatggaaga 180  
agtagtgggt tctgtccagg gcaaggcaca agttctaatt ctaactggga aagcactaaa 240  
tgtgactcct gactatagcc ctaaggctga ggagcttctg tcaaaggctg tgaagctgga 300  
gcccagctg gtggaagcct ggaaccagct gggtagggtg tactggaaaa aaggggatgt 360  
tgcaagctgcc cacacctgct tctcaggagc cctcaccat tgcaggaaca aagtctcctt 420  
gcataaacctg tcaatgggtg ttctgcagct gcggactgac actgaagatg aacattctca 480  
ccatgtcatg gacagtgtcg acagctaagt tggctgttca gatggatgtc catgatggcc 540



gctcctggta	tattcttggg	aattcatatc	tttcccttta	cttctctact	ggccagaacc	600
ctaagatctc	ccagcaagcc	ctcagtgcct	atgcccaagc	agagaaagtt	gacagaaaag	660
cgtctagcaa	tcttgacctt	catctgaaca	gggcgacgtt	gcataaatat	gaagagagtt	720
atggggaggg	cctgggaggn	tttctctcgg	gctgcagctg	nggaccctgc	ctggggccaga	780
gccccgcaa	cgagagcaac	aacttctggg	attcctggga	tagattaacc	agcctccttg	840
agagtaaggg	gaaaggtgaa	gacccaaaaag	ctgcagagct	gntggggaag	tttgcgccna	900

<210> 1040

<211> 379

<212> DNA

<213> Homo sapiens

<400> 1040

ccagtcagcg	gggtggtctc	ctgggtcccc	agcctcgcca	ttctgtgggg	ggtggtgact	60
gggcgaactc	tcagatgcct	cagcaccctc	ccacccttc	ctcaggcaga	acgagatctt	120
gtggcgggag	gtggtgacac	ttcggcagag	ccacggcggg	gccgagcaat	gcaggaggca	180
agagaaagct	gtccctgatg	ctggatgagg	ggagctcatg	cccaacacct	gccaaagtca	240
acacctgccc	tctacctggt	gcccttctgc	aggaccctta	cttcattccag	tcgccctcac	300
agggccaggg	gccccatcat	ctctgacatc	ccagaagact	ctccatcccc	tgaggggacc	360
aggctttctc	cctccagtgc					379

<210> 1041

<211> 389

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(389)

<223> n = A,T,C or G

<400> 1041

ccagtcagcg	gggtggtctc	ctgggtcccc	agcctcgcca	ttctgtgggg	ggtggtgact	60
gggcgaactc	tcagatgcct	cagcaccctc	ccacccttc	ctcaggcaga	acgagatctt	120
gtggcgggag	gtggtgacac	ttcggcagag	ccacggcggg	gccgagcaat	gcaggaggca	180
agagaaagct	gtccctgatg	ctggatgagg	ggagctcatg	cccaacacct	gccaaagtca	240
acacctgccc	tctacctggt	gcccttctgc	aggaccctta	cttcattccag	tcgccctcac	300
agggccaggg	gccccatcat	ctctgacatc	ccagaagact	ctccatcccc	tgaggggacc	360
aggctttctc	cctncagtga	tggcaggaa				389

<210> 1042

<211> 1220

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(1220)

<223> n = A,T,C or G

<400> 1042

gtgggacgcg	ccgagccgga	ggctgcagga	tgatgcgggt	catgctatta	ttcagccggc	60
agggaaaact	gcggctgcaa	aaatgggtacc	tggccacttc	ggacaaggaa	cggaagaaga	120
tggtgcgcga	gctcatgcag	gttgtcctgg	ctcgaaagcc	caagatgtgc	agcttcctgg	180
agtggaggga	yctcaaagtt	gtctataaga	gatatgccag	cctctacttc	tgctgcgcca	240
tcgagggcca	agacaatgag	ctcatcacac	tggagctgat	ccaccgatac	gtggagctct	300

tagacaaata	ctttggcagt	gtgtgcgagc	tggacatcat	cttcaacttt	gagaaggcct	360
acttcatcct	ggatgagttt	ttgatggggg	gggatgtcca	ggacacctcc	aagaagagtg	420
tgctgaaasc	atcgagcagg	ctgacctact	gcaagaggag	gatgagtcgc	cacggagttg	480
ctggaggaga	tggggtttgg	atagccctgc	tggccggggg	gtggcgatgg	ggtcctggca	540
gcgtggcggg	aacggctgct	tctcctctgc	ccagggccct	gttcttggtg	ggactcggct	600
gccccctctc	tgctgcctca	cctttcggag	tgagctgtgg	gctcaggccc	ttcaaacatt	660
ccctccctcc	acccccctacc	tccactttcc	ccttttccca	ctgaagggtt	tagaagctag	720
gaggcaggaa	aatgtgaccc	agatgggggt	gctatttggt	ttttattccc	tgcctttgca	780
gaactgatgt	caccycagat	gtccttccct	ccctaataac	tgtaaataata	taaatatgtc	840
aggttaaaagg	gaaaagggtg	tcagggcact	tcttgctctc	tctgtcccat	aacctanctc	900
cacctccacc	ctccccctag	ccagccangc	agcttctctg	cctggggagg	gagcctggac	960
ccccctcttt	ctccttggtc	gcagtggggc	ctttatccag	tgccaggggag	gaacaacata	1020
gttaattttt	ttctaacctt	gccactttga	gggaaggaag	ggttggggga	agggcaagct	1080
ttatgggacc	ctggctctgc	cctggccctt	cactccagtt	ctgggtgagg	caggagctgg	1140
gaggggtgnn	gangsgggag	ggggaagtgt	ctgcctttat	gtcctttctt	ctgaaataaa	1200
aggaaaagca	tttctggaaa					1220

<210> 1043

<211> 410

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1) ... (410)

<223> n = A,T,C or G

<400> 1043

gtctttccct	ctctcctgtg	tttgccctctc	tgtcctgccc	ctgcgcaccc	ctccctgtgc	60
ccaccctgtt	tctgtcgcct	gcggctcttg	gggggtgtcc	attctcccgc	cttcccttct	120
cctgcacctg	gtcctgcctg	ctttctcgtc	gtctgccccca	ggaggtaggt	acacgacctg	180
tttttgtctc	ccatcactag	acgagggggag	ggggctgccc	tggcgccctg	gcgccttggc	240
ctcctgcccc	caggaggagg	gggctggggg	ctcaggctcc	tgggctggga	ctgacagact	300
cagaaaatgt	ggagccccaa	gctgggggtg	gacgattctg	gacccccaaa	tgcttggcct	360
gcttgtctgt	ctccccaaacg	caacggcttt	gtctaagccc	caagancccc		410

<210> 1044

<211> 591

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1) ... (591)

<223> n = A,T,C or G

<400> 1044

atcagaagag	gtcagttaaa	tattcaccca	ggccctgggg	gctctcttac	agctgttctg	60
gcagatatgt	aagtaatatg	gtctcatgcg	atacaaaaat	acttgaaaat	cccactgaaa	120
gatttaaaagt	attatagatg	tatcttggtt	attcctgata	tctataataa	gcagcatgtg	180
aaagaactag	tgaatatgat	actaatgaag	atgggttttt	cagggattgt	ggtccatcag	240
gagtctgtgt	gtgccaccta	tgggaagtggc	ttaagcagca	cgtgtattgt	agacgttggg	300
gaccagaaga	caagtgtatg	ctgtgtggag	gatgggggtg	ctcatcggaa	tactcggctt	360
tgtctggcat	acggaggatc	tgatgtgtca	agatgttttt	actggctaata	gcagcgagcn	420
tgggttccct	tacagagaat	gccagttaac	aaataaaaatg	gattgtcttc	ttctgcaaca	480
ccttaaagaa	actttttgtc	atttagatca	aggacatctc	tgggcttcag	gaccatgagt	540

ttcagattcc gacatcctga ttctcctgcc ctgctttacc agtttccgaa a

591

<210> 1045

<211> 400

<212> DNA

<213> Homo sapiens

<400> 1045

attcaagacg	caagagagcc	tgggtgtgtga	agcgttggca	gtagttcagc	ctggctagag	60
agtacaaggg	gagaggggat	gtactgggaa	tggtaaacag	aggccagata	ataaagggyc	120
tgyccttctct	gtctcaarga	taggaacctc	ctccyctgaa	tgtattaata	agtagtgaac	180
ccccctwttt	twagtagagg	gccagcgatg	tccatccgta	ttggccgttt	ccagaaagtt	240
tgccttaggc	tgtgatgtgg	aaaatggatt	tggggagagc	aaaactaaag	tcaggaaact	300
gctaagataa	tccaattcag	tggattcagt	aatattttaa	tattgcattc	aaatattcag	360
tgagtatctt	ctgtatgcca	gacacttttc	taggccttgg			400

<210> 1046

<211> 645

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(645)

<223> n = A,T,C or G

<400> 1046

gaaaaaaaa	nttttgaaac	ccctttggna	cncnttaata	caagctactt	ggtctttttg	60
caggatccca	tcgattcgca	acaaatcadc	ctggagctag	cattgcactc	tcgagaccct	120
ctcttaataa	ggacttccgg	gatcacgctg	agcagcagca	tattgcagcc	caacagaagg	180
cagcttttgc	gcattgctcat	gcacattcat	ctggatactt	catcactcaa	gactctgcat	240
ttgggaacct	tattcttcct	gtttttacct	gccttgaccc	agaatgaaga	aaacatttgc	300
gatggaaaag	tgacttttga	atatcaaata	ccaaagctac	tatcattcag	tgctacatga	360
actgtgactt	taagaatttt	ggtgaacttt	gatatttttt	gtttgtctga	aagaaaggaa	420
tgtgtaagtg	aaagctgaaa	gaagaataac	caggatgatg	agagctgttg	aagctgtatc	480
gtccaaggaa	ttgattatgt	accgtgactg	taactttttt	gtaatgctgt	ttaactctca	540
atcagactgt	gaactggatg	gtcacggaag	tcattcccca	actcctagca	agtttgactg	600
gaatatatnc	atgtccacag	taganttttc	aaggaattca	tttga		645

<210> 1047

<211> 418

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(418)

<223> n = A,T,C or G

<400> 1047

gggggacggg	tcgggacacc	agtgaacttt	gaaccgggaa	gtgggaggac	gtagagcaga	60
gaagagaaca	tttttaaaag	gaagggatta	aagaggggtg	gaaatctatg	gttttttatt	120
taaaaaagaa	aaaggaaaaa	aaaaaagtca	ntancaaaaa	ncccagctca	anaaccntt	180
ntacnccaaa	ctggaangga	naananagca	ccaggaanat	tccanaancg	gggggcccca	240
gtttttgaaa	aactttatga	acttttcaaa	nattattttt	ntatggcanc	aagtgatacg	300
gaaaactgct	gtcagggacn	cctgatntgg	aatcaaaata	natttttant	taattganca	360

taanattttag ggattttttcc ananctcgaa aggggtcaaca gccctccana atgtcggc 418

<210> 1048

<211> 820

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(820)

<223> n = A,T,C or G

<400> 1048

tctagaatac	aagctacttg	ttctttttgc	aggatcccat	cgattcgcac	atttcaagtg	60
cttaacagcc	tcatgtggct	agtgactgct	gtattggacg	gtacagatat	ggaacatttt	120
catcatcgaa	gaaagtccta	ttggacaaca	cttctataaa	aagtttgaga	gcaggaattc	180
tcattttccat	tcgtctgtag	cttctatccc	caaaggcaaa	gaaactaaaa	gagaaatgac	240
tcattgaaga	ttggcctcct	tcctttctct	aagacaaaacc	taagtaaaag	cctgagcttt	300
gagtcctatg	ctcagcacac	gggaaggaga	tgtaataaat	taaaataaag	ttgatatcct	360
gtcttttaggg	agttcccttg	atctcttgaa	agagacacag	ccccatttac	attatttcgt	420
ggatttcacc	agcataagta	tarktttttt	ctgtaagtcc	ctcattctta	tgtaataaca	480
ggtggaactg	aggtttgaag	aacctcagtg	gcccatcctg	atgacattgg	agactcaaag	540
agacaagaga	gagtaggggt	taaaacctga	gctttaagac	tcccactagc	ttcgtgtcct	600
ttggcatgtt	aacgtgcctc	agtttcctca	tctgtataat	ggggatata	gaaaggcacc	660
agtcctaagg	tgaacattaa	gtgagatgat	tctagttaca	gacttaggaa	caatttccag	720
cacatagttt	aatatccggg	ggattctggg	tactgttatg	tgtgggggtg	gctgacctgg	780
gatgttggnt	gtttttcctc	tcttcttngc	tggacccctc			820

<210> 1049

<211> 600

<212> DNA

<213> Homo sapiens

<400> 1049

gaccacctga	ttgcctcctc	gtgctagacc	ttgaaccaga	ggcactccgc	taagctttct	60
gaccacaga	aactatgaga	tcataaatgg	attgttttaa	gccactaaag	atttgaagta	120
atttgtcatg	cagcataggt	aactaatata	gtagtgtact	tatttgccaa	agtaataatt	180
tttaaaggaa	tacagcaaaa	tataagactc	catcataatc	tggcatgcaa	tamwaaattc	240
gcgrcyrgwc	gamtgaagaa	gcaggaaaat	gtcacctata	accaggggaa	aaatcagtca	300
atagatgcag	acctagaacg	gatagaaatg	ataggattag	catgcagcaa	tgtaaatatg	360
atctctgctt	aaagtatgtg	aagggaagca	tgcmcagatg	aagaragaar	tgaaagatat	420
gaaaaagaat	agaggaggcc	aggtatgggt	actcacgcct	gtaatcccag	cactttggga	480
ggccgaggca	ggtggatcac	ctgaggtcag	gagttcgaga	ccagcctggc	cagcatgcga	540
acgccatctc	tactaaaact	acaaaaaaat	tggccaggca	cggtgggtgtg	tgctgtagt	600

<210> 1050

<211> 694

<212> DNA

<213> Homo sapiens

<400> 1050

agaaatatag	taaacataaa	tttgcaacaa	ttttaaaagt	ccagttttta	ggtgactcaa	60
agaaagtcac	tatgcctatt	aatagttatt	tgatgccatc	accaaaagtc	tatgtgaaaa	120
tctcctaaag	tcaaaacccc	tgcttttggt	tttacagacg	gttattacca	ttgggtggag	180
ctgcaaggtc	aaattttctc	taagttcccc	tatttagagg	aaaagtcact	ggttattgta	240
ataaaccacc	catggttctt	tatgtacatt	ttgataacac	attattatag	cttsatttta	300

atTTTTtgcA	ttaatttttTg	aaatccacat	acatctcatt	tgttttaaatt	aaggccatgc	360
acaaatatTTt	tttttagttc	agtgtctgacc	attaaaaact	atcatgcttg	atacgggtgca	420
aaagttaaaa	tgagtatcac	taaaaatgcc	ttctttttat	gtgggtgcaat	atgaaataca	480
ccaagactgt	gtcttgacat	tctgatggac	ccaggtaaaag	ttgtttaaag	aacgaataaa	540
actttattaa	aataatttag	acacctgtgt	accagcaaca	attgatttaa	tagacctata	600
gtgtctatac	tatcccttag	aataaagggt	tatgattttc	ctgatactaa	gatgcagtca	660
cataatcttt	tgtgcatatt	cctatacaaa	ttat			694

<210> 1051

<211> 672

<212> DNA

<213> Homo sapiens

<400> 1051

gaaaaatgag	taggagatga	ctgagagctt	aaagtttggg	agtgtcaatt	aactcagcat	60
tcttttaaaa	aacgtgtcat	atattacagc	attttctttt	atttgaagtg	agtaaatgta	120
tctttttaaA	ttccttagta	atttttgagc	actccatatg	tataaagcat	gtgaatatTTt	180
ggtagcattt	tacaaatktc	cagagatttk	tgagarttcc	tgagatcttc	ataggggscC	240
cacaaagttt	agtattactt	ttcacggtaa	ttactaaagt	gtattttgcc	tctttttact	300
ttttctctta	atagcataca	gtggtaactg	aaggctaata	gtatgtgtgk	ttatgtgctt	360
taaaaagtTc	gtggyttTg	ccaggcgCag	tggctcagac	ctgtaatccc	agcactttgg	420
gaggctgagg	caggtggatc	acctgaggtc	aggagttcaa	gaccaaaacc	agcctggcca	480
acatggtgaa	accccatctc	tactaaaaat	acaaaaatta	gccaggcatg	gtagtgggtg	540
cctgtagtct	cagctactcg	agatgctgag	gcaggagaat	cacttgaagc	tgggaggtgg	600
aggttgCagt	gagccaaaat	ctcgccatta	cactccagcc	tgggggacaa	gagcaagact	660
ccatctcaaa	aa					672

<210> 1052

<211> 396

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(396)

<223> n = A,T,C or G

<400> 1052

gCgaggaaga	aatggaggat	gagcaagaaa	gCgaggccga	agaagacaac	caagaagaag	60
gggaatccga	ggcggaggga	gaaactgagg	cagaaagtga	atttgaccca	gaaatagaaa	120
tggaagcaga	gagagtggcc	aagaggaagt	gtccggacca	tgggcttgat	ttgagtacct	180
attgccagga	agataggcag	ctcatctgtg	tctgtgtcc	agtcattggg	gtcaccagg	240
gccaccaact	ctccacccta	gacgaagcct	ttgaagaatt	aagaagcaaa	gactcaggtg	300
gactgaaggc	cgctatgatc	gaattggtgg	aaaggttgaa	gttcaagagc	tcagacccta	360
nagtaactcg	ggaccaaattg	aagatgttta	tacagg			396

<210> 1053

<211> 782

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(782)

<223> n = A,T,C or G

```

<400> 1053
actccttnna caagccactt gctctctntg cnggatccca tcgnntcnaa ttcggcacga      60
ggtgacatgc tgtattggct actccataaa gtaggagtat agatggaatg gagaaagaag      120
caacctctga gattccagtg gkgyrygrgg gcaagatctg atggaaactg amaaagagaa      180
cgaagactam acaaagagaa aggaaagaga agaaacccta aatgggcaaa ggaaagcaca      240
tctgttttgc ggagctttga aatattggaa ccattttctaa ttgctcctgt ttttctgggt      300
aacaccagtt ttctgtagtt gccactaaag cagtagactc ttgagtctca cttgtctctg      360
agagagacag aagttagaaa gttttgactt ggcgattccg aaagtatgcc tttgttggca      420
cttaaatgtc cagtgaagact tcttggcacc ttagagccct ctgagatact grttatttta      480
ggttcttctc cctactttca gatgttttca gccaacactt ggggtgctctc ttccactaca      540
gagaatcctg aagaaaaggg aagggtgttc ccatgatggg gaatgtcact gccatgaatt      600
cctgaatcta cctgctgctg ggagtcagag tccaagcata acccggtgtag cataaaagca      660
gcgctgtagc cctattccag tctttttcgt taatgtccag agtgaacaac aagagttagt      720
caatcattaa ctgttgactg ttgattctca taataaatgc agcataacga caaaaaaaaa      780
aa                                                                    782

```

```

<210> 1054
<211> 688
<212> DNA
<213> Homo sapiens

```

```

<400> 1054
aattcggcac gaggtggaat cagctgtgaa tgcagaaaga ggaggtgctg atcggattga      60
attatgttct ggtttatcag aggggggaac tacaccagc atgggtgtcc ttcaagtagt      120
gaagcagagt gttcagatcc cagtttttgt gatgattcgg ccacggggag gtgatttttt      180
gtattcagat cgtgaaattg aggtgatgaa ggctgacatt cgtcttgcca agctttatgg      240
tgctgaatgg tttgggtttt ggggcattga ctgaagatgg acacattgac aaagagctgt      300
gtatgtccct tatggctatt tgccgccctc tgccagtcac tttccaccga gcctttgaca      360
tggttcatga tccaatggca gctctggaga ccctcttaac cttgggattt gaacgcgtgt      420
tgaccagtgg atgtgacagt tcagcattag aagggtacc cctaataaag cgactcattg      480
agcaggcaaa aggcaggatt gtggtaatgc caggagggtg gtataacaga cagaaatcta      540
caaaggrtcc ttgaggggtc aggtgctaca gaattccact tgttctgctc ggtctactag      600
gagactcsgg gaattgaagt ttycgaaatt catcttgttt gccmtgggga gccycacttt      660
tctttgctyc aggaatwttc cccttatt                                                                    688

```

```

<210> 1055
<211> 457
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> (1)...(457)
<223> n = A,T,C or G

```

```

<400> 1055
gagagacttc ttcctgcatc cttacatggt ggaagacaaa agagtggcag agaatgaata      60
tactcccagt ccattcgaga ggggaagagcc ctcacctcat cacttccctg aggcctcacc      120
ttctaatact atcaccttgg tgataagatt tcaacatagg aattagaggg gaatacatac      180
atccagacta ttgcagatgg gattatgtaa tactttgttc ctgtttggct tatttcttag      240
cacaatatct ttctggatat tgcattgttc tgcaaatggc aagattttct tcctttttaa      300
ggctgagtaa taattcattg catgtataga ccacattttc tttatgcatt cattattagt      360
gagagtcttt attacaaatg ggcgaagtgg tttttaatat tgatttaatt tttgttatta      420
aaaacgtttt tngagtgggt nggttccttt tttngga                                                                    457

```

```

<210> 1056

```

<211> 664  
 <212> DNA  
 <213> Homo sapiens

<400> 1056  
 ttttagtaata agacttttcag tatTTTTtaat gttgacattt ccagatgttt catttagtat 60  
 ccaggggtct gtctggagac ttctagagag ggacagctca gaagtggagac ccttgagctc 120  
 tgggtgctgta agcttggtgca attaatgttgac acagagcctg ggaatttctt tctctgcac 180  
 agtcccttga tattttggaat ccagggttctg cccccaaacc ctaccacacc agtgggtctgt 240  
 taagatgtct cagatggggc tgggcttggg ggctcatgcc tgtactctca acactttggg 300  
 aagcaaaggc aggcagatca caaggtcagg agttcagcct aaccaacatg gtgaaaccgt 360  
 gtctctacta aaaatacaaa aattagccag gcgtgggtggg gcacacctgt aatcccagca 420  
 ctttgggagg ccgaggcaga cgggtcactt gaggccagga gttcgagacc agcctgggca 480  
 atactggcgg actccgtctc tactacaaat acaaaagtta gcctggcatg gtggcgcatg 540  
 cctgtaatct cagttactca ggaggctgag gcaggagcat cacttcaacc caggaggcag 600  
 aagctgcagt cagccgagggt ggcaccactg cacttcagcc tgggcaagac tggagactgc 660  
 ctca 664

<210> 1057  
 <211> 443  
 <212> DNA  
 <213> Homo sapiens

<400> 1057  
 gtaccttcaa aaggacacaa tgtaacaggg ttagggaaac agaagtccgc agggcctccc 60  
 taatgtcttt ggagcttaaa ccccttgat atttggccct tttcaataaa cggccacgc 120  
 tgatagcaca gaggagcccg gcatgcactg tatgggaaag cagtccacct tgttacagtt 180  
 ttaaatttct tgctatctta gcattcagat accaatggct tgctaaaaga aaaaaagaaa 240  
 tgtaatgtct ttttattctc aggtcaatcg ctacacttt gttttcagaa tcattgkttt 300  
 atatattatt gttttttcag tttttttttt tttttttgtt ccagaaagat tttttgtttt 360  
 gttaacttaa aaatgggcag aaagtattca agaaaaacaa tgtgaactgc tttagctttc 420  
 tggggatttt taaggatagc ttt 443

<210> 1058  
 <211> 607  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(607)  
 <223> n = A,T,C or G

<400> 1058  
 gagctatggc ggctttggct cgcaggatcc tcagtaaacc tattgaagta caagttggag 60  
 gcaggagtgt ggtttgctca gatgtggagc aacaagtgat tgtgattgaa gaagaaaaga 120  
 aattcttgaa gttacttgag cttctaggcc attatcaaga gtcaggatct gtcattatat 180  
 ttgtggataa gcaggaacat gctgatggc ttcttaagga tttaatgaga gcatcttata 240  
 cttgcatgtc tcttcatgga ggcattgatc aatatgacag agatagcatc ataaatgact 300  
 ttaagaatgg gacctgcaa cttcttgtgg ctacctctgt tgctgcccga ggtctagatg 360  
 tgaaacatct gattcttgta gttaaattata gctkscceaa ccattatgag gattatgtac 420  
 acagagcagg gcggactgga agagcaggaa acaagggtta tgcttatact tttatcacag 480  
 aggatcaagc tcgctatgct ggtgacataa ttaargetct tgaattgtca gggrrctgcag 540  
 tacctcctga tttagagaaa ctgtggngtg atttcaaagt tccagcagaa agcttagggg 600  
 gaaataa 607

<210> 1059  
 <211> 1139  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(1139)  
 <223> n = A,T,C or G

<400> 1059  
 gtgaatcatt acctagcatt tcagtttttt gcagaagaat attatccctt ctacagaggtc 60  
 ctggcctatt tcactttctg cctgtggata attccgtttg cgttttttgt gtcacttttcg 120  
 gccggggaga acgtcctgcc ctctaccatg cagccaggag atgatgtcgt ctccaattat 180  
 ttcaccaaag gcaagcgggg caaacgctta gggatcctgg ttgtyttctc cttcatcaaa 240  
 gaggccattc taccagtcg tcagaagata tactgacccc catgcaggca ggatgtgggg 300  
 ggcaagatca ggagagtcag gcccctgggc ctctatgccca ggtggggacc agaagtcggg 360  
 aaggcaccta ccacctgccc tggctttttt cccctcaact ctggagcccc atccccaccc 420  
 tccttggggg gctcagcttg gctcagatct gatgcttcaa gaggctgtaa cctcagaggg 480  
 caccaaggag ggtggcagag cctgytttagc caggaggccg aggtccctca gtcctccct 540  
 gtcccttcca agtggggtca ggaggttctg gcccgcctgg ggcaggcagg gcagggctcg 600  
 tnaagcttaa gagcagatgg tgacaagtgc tctgggcagg tggccatggg gaggggcat 660  
 ggcttggcat gtccaacaga aatagttttt nctgttgaac ggtgatttct gtccaagtgc 720  
 agatttccgt ttgaataaag ctctgccttct aggtggcact gtttgcctta ataccctgac 780  
 agttcatctt cttttcttcc tgctaacctt ctgctctgga ctggactcac ttttctgctc 840  
 cagggactcc ttttctgggt ttgggtcttg ccttcccaa gggactgttc ttgtggccct 900  
 taatgggaag ggggcagggg tgaggagctg agcctgctca aggagtggga agtggggcta 960  
 taggcagcct ctctgatgca ctctcttcca tctctttccc caaggctccg tgactgtcaa 1020  
 actgggagta ggagagggga caatttagga ctgggctaga ttttcagaag aacatctaca 1080  
 atatcctatt tataaatctt cctctgggaa aaggagtggg ttctggctga atactatct 1139

<210> 1060  
 <211> 419  
 <212> DNA  
 <213> Homo sapiens

<400> 1060  
 attccagata aaggagtag ccagtgtaaa ggtcttaagt taggaacaag cttggtatat 60  
 taaagaataa gcaagggaagc cagtgtgggt gaggagagag caacagaaga tgaggctcag 120  
 taagtaatat tggcgcttg taggctctaa ttaggaattg ggcggctgga agtgggtggt 180  
 caggcctgta atcccagcac ttctgggagg ccgaggtggg cggwtcacga ggtcaagagt 240  
 tcgagaccag cctgaccaac atagtgaaac gccatctcta ctaaaaatac aaaaattaac 300  
 tgggcatagt ggtgcgtgcc tgtaatccca gctacttggg aggtcggggc aggagaatcg 360  
 cttgaaccca ggaggcagat gctgcagtga gccgagawta caccactgca ttccagcct 419

<210> 1061  
 <211> 745  
 <212> DNA  
 <213> Homo sapiens

<400> 1061  
 gagagaggcg ggactgggtc aagtgggtgg agctcctcct tgcattgactg caactgtcgg 60  
 ggctttccgc cggctcacag cagtgggggc cagcggggag aagagaggcg gaactgctgt 120  
 gtcctcatgt ggcgcagcct caaamtggca tycargcact gggcccgtgc agagaaggca 180  
 cctgcagaga gcagggcagc ccgkcgagg ggcattgcgc tagawycca gctactcgra 240  
 aggccaaggc aggaggaccg cttgagtcca gggattcaag gccaacctgg gcaatagagc 300



gagaccctgt	ctcttaaaaa	acgatgatga	tgaacacaga	ggacggggca	ctgtgctggg	360
agccaggggg	cctgggagga	gccsagacca	gccttttacc	tcgggggttt	gagkccaaca	420
gggacgacag	agacagtttc	tagttagagc	cttggtccca	tttttgatg	atttagcccc	480
gagttcctga	gtctatttta	ygccccctac	gtactttgat	agaactaagg	aaatagtggg	540
tttragtga	gggaaaggaa	acccagaaac	attttacgtt	gcttttactt	ctgtagtgtg	600
gattgccccg	gccccctctc	gagccctgta	gcatctgtga	tagcttctgt	cccttcatcg	660
gttcatgtca	cagggatttt	ctttcccagg	aagcggacac	ggagagtcag	ccctaataaa	720
tgagcacatg	ccctggctgt	aaaaa				745

<210> 1062

<211> 409

<212> DNA

<213> Homo sapiens

<400> 1062

aattcggcac	gagcttacat	gaacaaggta	gagctggagt	ctcgccctgga	agggctgacc	60
gacgagatca	acttcctcat	gtaagcttca	tccacatcct	tcttgatgag	gacaaaattcg	120
ttctccatct	ctgtacgctt	attgatctca	tcttcatact	tgttcttgaa	gtcctccacc	180
agccctgca	tgttgccaag	ctccgcctcc	agcttcagct	tctcctggcc	cagagtctcc	240
agctgccgcc	taaggttggt	gatgtagctc	tcgaacatgt	tgtccatggt	gcttcgagcc	300
gtcttctgct	gctgcaggag	gctccacttg	gtctccagca	tcttggtctg	ctgctccagg	360
aaccgtacct	tgtctatgaa	ggaggcaaac	ttgttggtga	gggtcttga		409

<210> 1063

<211> 576

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1) ... (576)

<223> n = A,T,C or G

<400> 1063

aattcggcac	gagggcaggg	cctggacgta	gtgtcttcaa	cagttgtaac	agcagctgcc	60
atttgctgaa	tgacagcatg	tgtcacacac	tctgctgagt	attacaggca	tttttttcta	120
atacaaatgc	cccaagtgcc	aggagagctt	tcggcgggcg	tcagacctca	ccacgcacca	180
gcaagatcac	ctaggcaagc	ggccataacc	ctgtgacatc	tgtggcaaga	gcttcagcca	240
gagtgccacg	ctagctgtgc	atcacccggac	ccacctggag	ccagcaccct	acatctgctg	300
tgagtgtggg	aagagcttca	gcaacagctc	cagctttggc	gtgcatcacc	gcaccacac	360
aggtgagaga	ccttatgagt	gcaactgagt	tgggcggacc	ttcagcgata	tctccaactt	420
tggagcacac	cagcggaccc	acagagggga	gaagccctac	cgggtgactg	tgtgtgggaa	480
acacttctcc	cggagctcga	atctcatccg	ccacnaagaa	aactcacttg	ggcgaacagg	540
ctgngaaaga	ttccagctga	aggagagccc	cattttt			576

<210> 1064

<211> 610

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1) ... (610)

<223> n = A,T,C or G

<400> 1064

aattcggcac	gaggaactat	ctagtagctg	gttccctccg	aagtttccct	caggatagct	60
gggacagcag	ctgctgctgt	ggaaaggcca	gctgggaaga	tgatggaaga	aatctccatt	120
atggtagcct	atgacgcca	tgtwkwcm	magmtrcas	grwgargamw	tscymaswag	180
wctgrtggc	atcagcargc	ctgcarkwyt	awrgtacc	ccaagaagct	gaagaaatat	240
gagaaagaat	atccagacaa	tgcgagagag	tcagctgcaa	caggaagacc	caatggatag	300
atacaagttt	gtatatattgt	aggtaactcc	agctgttgca	tttatactgg	gaatcttcat	360
aagaagctga	gagaaagaga	ggggaaaaag	aaagtggctt	tctactttca	aaaatgaaac	420
aaaaaggaaa	aatggcacaag	tactgtttta	gctgtgcatg	tcataatccac	aaagactttt	480
agcaggtgaa	ctgttccaag	actgacacaa	ggatgtttca	aacttgcttc	tgtctgtaga	540
aaatgttaaa	aataccaact	cacttggaag	gaaaaataaa	aatcacaaag	gtatattgag	600
cacaaaaaan						610

<210> 1065

<211> 837

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(837)

<223> n = A,T,C or G

<400> 1065						
aaaaaattca	tactggagag	aaaccctatg	agaaccctaa	ccctaacgct	tcagttgtcc	60
cagttctttt	atgagcatga	aaggagtcac	atagagaaac	cccatgaaag	taagaaattt	120
gggaaagcct	tcagtccttt	ctgtttcttt	caactacgtg	aaaggattca	cagtggagaa	180
agaccctgta	agataattgg	ctttaaatta	cgagagactt	gtgataggac	agtaaaacct	240
agagttggag	ttggatctct	ggatttgtgt	atgtcagtgt	tggtagggtta	ggaactagat	300
ttcccagaat	ccattccatt	tgtgattcca	tgatacaatt	caccagtaac	ctatcttaca	360
tgagattcgg	aagtaagtta	aagaaggcat	tagtcatggk	ttggaagcac	catacagggg	420
gacagctgtg	tgaatacagg	ctgtatggac	acttgcttcc	atcccatttt	cctgcttctt	480
tgggttgcca	atcaagagta	tcctcaaaac	gacttgactt	taattttctc	ggaggtgata	540
ggctccaca	caggtctcca	gaagccctgc	attgaatata	catccacact	ttggttttcc	600
ttcagacatt	attatgtctg	tactaggcaa	ctaattcaga	ctgtcctggg	kgggaatatt	660
ctgtgatgct	ctgactcccc	tagtctgtag	acggaattgg	catacgggtc	aatttgtgta	720
gtaagcacct	ttgttcatac	tagtagtgac	tgtattctyg	aktcagcctg	atagctacca	780
tgctgcctgt	caaaanccaa	ccaagagggg	agccttggtg	ccttcctgct	ggaagtc	837

<210> 1066

<211> 850

<212> DNA

<213> Homo sapiens

<400> 1066						
gcaagaccca	ccaggtgcca	gctgcccctg	ccccttgccc	atgccctgtg	tgtgggcggc	60
ccctggccaa	ccagggtctc	ctgcggaacc	atatgaggct	ccatacagga	gaaaagcctt	120
tcctgtgccc	gcaactgtgg	cgggcgtttc	gtcagcgggg	caacctgcgt	gggcatttgc	180
ggctccacac	cgagggagcg	tccttaccgc	tgcccacact	gtgccgatgc	cttccccag	240
ctgcctgaac	tgcggcgcca	tctcatctca	cacaccgggg	aggcccactt	gtgcccgggtg	300
tgtggcaagg	ccctccgaga	cccacacacg	ctccagagctc	acgagcgctc	gcactccgga	360
ragaggccct	ttccctgtcc	ccartgtggc	cgtgcttaca	cgctggccac	caagctgcgg	420
cgccacctca	aatctcactt	ggaggacaag	ccctaccgct	gccccacctg	tggcatgggc	480
tacaccctcc	cgcagagcct	caggcggcat	cagctcagtc	accggcctga	ggcaccctgc	540
agcccacctc	ctgtgccttc	tgtgcttctc	gagcccactg	tgggtgctcc	gcagctgag	600
ccacaactgc	tggacacaca	cagagaggag	gaagtctccc	ccgccaggga	tgttgttgag	660
gtcaccattt	cagaaagcca	ggagaagtgc	tttgtgtgtg	cagaggagcc	agatgccgcc	720

cccagcctgg	tgctaatacca	taaggacatg	ggcctcggcg	cctggggcaga	ggtggtggag	780
gtggagatgg	gcacctgaca	gctttgcctt	ttgctgacac	agctccataa	agactcgtgc	840
tttctcaaaa						850

<210> 1067  
 <211> 546  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(546)  
 <223> n = A,T,C or G

<400> 1067						
gcaggctctt	atactatctt	gcacaggctg	gtctcgaact	cctgggctca	agcagtcac	60
ctgcctcagc	cttccaaagc	tcagggatwr	cagacrtgag	ccacagcacc	aggccaacaa	120
tatttcttaa	agctcctgga	gtgattccaa	tatgcagcca	aggttgaaaa	cyacccttta	180
aaaggctcgg	catccagtgt	ggaagaccag	caacwccacr	tcmggagacc	ttaccyggag	240
ccaggmtgcc	cctgatcatc	tctgataact	ttaaaaggaa	ggcctcagaa	gcagccccag	300
aagcaaaagt	ttctctctga	ccttctcctg	ccctcttgty	tctggctttt	cattctcccc	360
caaggctacc	cataggaaac	taggaatccc	tcttccccaa	gggcaggtca	ttcaggaaac	420
caggaaccgg	tttttaccce	aagccaggcc	ataaaaacct	aaaattagtt	cctnttcatt	480
cccctttccc	tttttttgtgt	taaaaattgg	kttgggaaag	gaatggtttt	gaacntacct	540
gttttt						546

<210> 1068  
 <211> 432  
 <212> DNA  
 <213> Homo sapiens

<400> 1068						
atcatttaga	ggcagaagtt	aagttctgca	aggaggaact	ctctggaatg	aaaaataaaa	60
tacaagtagt	tgtgcttgaa	aacgaagggc	tccagcaaca	gctaaaatct	caaagacaag	120
aggagacact	gagggaacaa	acacttctgg	atgcatccgg	aaacatgcac	aattcttgga	180
ttacaacagg	tgaagattct	ggggtgggcg	aaacctccaa	aagaccattt	tcccatgaca	240
atgcagattt	tggcaaaagct	gcatctgctg	gtgagcagct	agaactggag	aagctaaaac	300
ttacttatga	ggaaaagtgt	gaaattgagg	aatcccaatt	gaagtttttg	aggaacgact	360
tagctgaata	tcagagaact	tgtgaagatc	ttaaagagca	actaaagcat	aaagaatttc	420
ttctggctgc	ta					432

<210> 1069  
 <211> 681  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(681)  
 <223> n = A,T,C or G

<400> 1069						
ttgaanccct	tnnnmntttg	aaacccttta	atacaagcta	cttgttcttt	ttgcaggatc	60
ccatcgattc	gaattcggca	cgaggaacta	tctagtagct	ggttccctcc	gaagtttccc	120
tcaggatagc	tgggacagca	gctgctgctg	tggaaaggcc	agctggcaag	atgatggaag	180
aaatctccat	tatggtagcc	tatgacgccc	atgtwkwcag	mmaggmtrca	sgrwgargam	240

wtscymaswa	gwctgrtggc	catcagcarg	cctgcarkwy	tawrgtacca	accaagaagc	300
tgaagaaata	tgagaaagaa	tatccagaca	atgcgagaga	gtcagctgca	acaggaagac	360
ccaatggata	gatacaagtt	tgtatatttg	taggtaactc	cagctgttgc	atttatactg	420
ggaatcttca	taagaagctg	agagaaagag	aggggaaaaa	gaaagtggct	ttctactttc	480
aaaaatgaaa	caaaaaggaa	aaatggcaaa	gtactgtttt	agctgtgcat	gtcatatcca	540
caaagacttt	tagcaggtga	actgtttcaa	gactgacaca	aggatgtttc	aaacttgctt	600
ctgtctgtag	aaaatgttaa	aaataccaac	tcacttggaa	ggaaaaataa	aatcacaaa	660
ggtatatattga	gcacaaaaaa	n				681

<210> 1070

<211> 414

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(414)

<223> n = A,T,C or G

<400> 1070

agctgcagaa	gctgcacagt	gagatcaagt	ttgccctaaa	ggcgcacagc	ccggacgtga	60
agaggtgcct	gaatgcccta	aaggagctgg	gaaccctgca	ggtgacctct	cagatcctcc	120
agaagaacac	agacgtgggtg	gccaccttga	agaagattcg	ccgttacaaa	gcgaacaagg	180
acgtaatgga	gaaggcagca	gaagtctatn	cccggctcnc	nngagagcnn	nncagacaac	240
tgtggggaaac	gctgnctgtg	ntgnanttgg	tcccttgggt	tttttttntc	gcctaattta	300
tgttattncc	aaccaacatg	antgactat	aancgggttt	ttaatnaaaa	aaaaananaa	360
aaacnncnnc	ccttttnatn	tttntgnngg	ngnnttcngt	ccccgcnntn	taaa	414

<210> 1071

<211> 423

<212> DNA

<213> Homo sapiens

<400> 1071

aattcggcac	gagacgacgc	agtggccctg	aagtctgcag	acattgggat	cgccatgggg	60
cagacagggg	cggacgtcag	caaagaggcc	gccaacatga	tcctgggtgga	tgatgacttc	120
tcagccatca	tgaatgcagt	ggaggaaggc	aagggtatnt	tttacaacat	caaaaacttt	180
gtccgattcc	agctgagcac	gagcatctcc	gccctgagtc	tcactactct	gtccaccgtg	240
ttcaacctgc	ccagccccct	caacgccatg	cagatcctat	ggatcaacat	catcatggat	300
gggccaccgg	cgcagagctt	gggggtagag	cccgttgaca	aagacgcctt	caggcagcca	360
ccacggagtg	tgcgggacac	catcctcagc	agagccctca	tcctgaagat	cctcatgtcc	420
ccg						423

<210> 1072

<211> 1586

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(1586)

<223> n = A,T,C or G

<400> 1072

ccgctgctca	cacctttcta	ctgaagcatc	ctgatgacga	aatgatgaag	aggaacatgg	60
catattataa	gagcctgcct	ggtgccgagg	actacattaa	agacctggaa	accaagtcac	120

atgaaagcct	gttcatccga	gcagtgcggg	catacaacgg	tgagaactgg	agaacatcca	180
tcacagacat	ggagctggcc	cttcccgaact	tcttcaaagc	cttttacgag	tgtctcgag	240
cctgrrggg	ttccagggag	atcaaggact	tcaaggattt	ctacctttcc	atagcagatc	300
attatgtaga	agttctggaa	tgcaaaatac	agtgtgaaga	gaacctcacc	ccagttatag	360
gaggctatcc	ggktgagaaa	tttgtggcta	ccatgtatca	ttacttgag	tttgcctatt	420
ataagttgaa	cgacctgaag	aatgcagccc	cctgtgcagt	cagctatctg	ctctttgatc	480
agaatgacaa	ggctatgcag	cagaacctgg	tgtattacca	gtaccacagg	gacacktggt	540
gcctctcrga	tgagcacttc	cagcccagac	ctgaagcagt	tcagttcttt	aatgtgacca	600
cactccagaa	ggagctgtat	gactttgcta	aggaaaatat	aatggatgat	gatgaggagg	660
aagttgtgga	atatgtggat	gacctcttgg	aactggagga	gaccagctag	cccacagcaa	720
ccaaagagac	ttcctcttgg	cgttcaggaa	acacagattc	tttgtccttt	tcccaacagc	780
ccaggctgtt	gatacctcag	agccttctct	ttactctcca	aagtgaagg	gaagcccccg	840
tctctctaac	tgcatgtcat	caggggtgag	cctgcctttc	ctatcttcac	acctgccacc	900
tcatgttcac	acctatcttt	ctcacctttt	ttttgagatg	gagtctcgct	ctcttgccca	960
ggctggagtg	caatggcacg	ttctcagctc	actgcaacct	ccgcctcttg	ggttcaagca	1020
attctgctgc	atcagcctcc	cgagtacctg	ggattacagg	catgtgccac	cacgcccggc	1080
taattttgta	tttttagtag	agacgggggt	ttgccatgtt	ggccaggctg	gtctcgaact	1140
cttgacttca	gatgatccat	ctgccttggc	ctcccacagt	gctgggatta	caggcgtgag	1200
ccaccatgcc	cggcctcttt	ctcaccttta	cacctgtctt	cttatctctca	catctgtttt	1260
cacaccttca	tcctgtctct	cctcatgttc	acacttgtct	tccccatgtt	catagctgcc	1320
tttcttcca	ttttggtttg	aagggcagtc	ttctctggct	tggttttttg	tttttccag	1380
aaaatcagta	ttatttttta	aataagaaaa	acattcctag	aagatgataa	ttgtgaaaac	1440
ctcctttggc	ttatttgctt	ttccaggatt	ttaagtctcc	tttctcccca	atccgggaaa	1500
agatgggttg	aagacataag	gctaaaattt	tctccaggcc	ttcacaatgg	gtcctttcac	1560
tttgggtctg	gactttgtaa	ccaatn				1586

<210> 1073

<211> 643

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(643)

<223> n = A,T,C or G

<400> 1073

aattcggcac	gaggccacag	ccgggtcacg	tgcccggttg	ccccccatga	cttgctggct	60
gcggggcagt	cacggtgacg	ttcggtccga	cctgccgagt	ggccaggcta	cctcagtcac	120
ctgtgtggtc	cnantgctng	catcggaact	gggacctatg	cgcaagagtt	accgcgggga	180
ccgagaggca	tttgaggaga	ctcatctgac	ctcccttgac	ccagtgaaac	agtttgctgc	240
ctggtttgag	gaggctgttc	agtgtcctga	cataggggaa	gccaatgcca	tgtgtctggc	300
tacctgcacc	aragatggaa	aacctctctg	tcgcatgttg	ctgctgaagg	gcttcgggaa	360
agatggcttm	cgcttcttca	ctaacttcga	gagtcgaaaa	ggaaaagagc	tggactctaa	420
tccctttgct	tcccttgtct	tctactggga	gccacttaac	cgtcagtgcg	gtgtggaagg	480
cctgtgaaga	aactgcctga	ggaggaggct	gaagttgcta	ctttccactt	ccccggcccc	540
aagaagcaag	ccaaganttg	ggggcttggt	ggttcaagcc	aaccagaagt	ttctggtgaa	600
ttccctggat	tcgggggaagt	atctgaagaa	aagaaaaaat	ggh		643

<210> 1074

<211> 675

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(675)  
 <223> n = A,T,C or G

<400> 1074  
 gcggccggcg ggggtgctggg ttcccgctctg ctgcctctcg gagagtcccg ggtgactgcc 60  
 gcaggctcca tcgccctgtg gcctgcagggt attgcgagat ttatagggag gacgctggga 120  
 ccccaaaaag ctgggaaatg ggactatttg cattcagga tgtggctcta gaattctctc 180  
 cagaggagtg ggaatgcctg gacccagctc agcggagttt gtatagggat gtgatgttag 240  
 agaactacag aaacctgatc tcccttggtg aggatagctt caatatgcaa ttcctatttc 300  
 acagtcttgc tatgtctaar ccagaactga tcatctgtct ggaggcaagg raagagccct 360  
 gggaacgtga acacagagaa gacagccaaa cactcagagt ctgagctctg tcaccaggg 420  
 ttgggaatgc aatgggtgct atcttcggct tcaactggcaa actggcgctc cgggtttcag 480  
 ggtcatttct cctgncctca gcctcctgag gtagcttgag gattacagtt ttgtcttctt 540  
 atctttactt gaaggacatt ttgccagag cagggggcct tncaagtttt tcattttccc 600  
 aaaaagttga tgcttttaggn aggggttttng aaagngtttg ttcttttang gaattacggc 660  
 tttaggggga ttact 675

<210> 1075  
 <211> 348  
 <212> DNA  
 <213> Homo sapiens

<400> 1075  
 gccgcggggc cgggcggtct caatatggcg gaggcggaag gggaaagcct ggagtcctgg 60  
 ctcaataaag ccaccaatcc ttccaaccgc caggaggact gggaatacat aattggcttc 120  
 tgtgatcaga tcaacaagga gctggaaggg tgagtctcag cactgtgggg gcagctgaga 180  
 gggagcggac tgggaagggg aacaaccatg gccaggagg gccagccagg tagccccagg 240  
 cttagtgcac tggagtgtgt tctgcttgct cccaggcca cagatcgccg tccgactgct 300  
 ggcccacaag atccagtccc cacaggaatg ggaggcgctc caccgccc 348

<210> 1076  
 <211> 403  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (1)...(403)  
 <223> n = A,T,C or G

<400> 1076  
 gttttgttta tttctgcaag attgtgaaaa caaaactttg ggtatttggt tcccattcag 60  
 gagatctggg agtgacttca tgtatttctt taacagtctt tgatcgtcac ctttcaattt 120  
 agactctaga gacagggaga ttgatgattt ctgagcaag aagcttgat ttgagttgaa 180  
 agttgaaaat gaaggcaagg tcttcattta aactttaaaa tttctacaca tttctttcaa 240  
 gtattaaaatt tttcttttgc agttattcta cctatggaaa tccaggcagc caaggctatg 300  
 gacaagcatc acaaagctat tctggctatg ggcaaacgac tgattcctct tatggacaga 360  
 actacagcgg ntactccagt tatggacaaa gttattcaca gtc 403

<210> 1077  
 <211> 421  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature

<222> (1)...(421)  
 <223> n = A,T,C or G

<400> 1077  
 catggctgtc cactccttgc ctgtcccccac agctcttccct gcagactctt ttttcccagag 60  
 gatcctgtta agattgtccg ggcccaaggg cagtacatgt acgatgaaca gggggcagaa 120  
 tacatcgatt gcatcagcaa tgtggcgcac gttgggcact gccaccctct cgtgggtccaa 180  
 gcagcacatg agcagaacca ggtgctcaac accaacagcc ggtacctgca tgacaacatc 240  
 gtggactatg cgcagaggct gtcagagacc ctgccggagc agctctgtgt gttctatttc 300  
 ctgaattctg ggtcagaagc caatgacctg gccctgaggc tggctcgcca ctacacggga 360  
 caccaggacg tgggtgtatt agatcatgcg tatacgggca cctgactncc tgattgacat 420  
 a 421

<210> 1078  
 <211> 3529  
 <212> DNA  
 <213> Homo sapiens

<400> 1078  
 aagaattcct attggaggtg ttaaactctac aagcaagaca tatgttataa gtcgaactga 60  
 accagcgatg gcaactacaa aagcaattga tgactcttcc gcgtctatct ctctggccca 120  
 gcttacaaag actgccaatc tggctgaagc caatgcttct gaagaagata aaattaaagc 180  
 aatgatgtcg caatctggcc atgaatacga cccaatcaat krcaygarga aacctctagg 240  
 tccaccacct ccatcttaca cgtgtttccg ttgtggtaaa cctggacatt atattaagaa 300  
 ttgcccacaa aatgggggata aaaactttga atctggctct aggattaaaa agagcactgg 360  
 aattcccaga agttttcatg atggaagtga aagatcctaa tatgaaaggt gcaatgctta 420  
 ccaacactgg aaaatatgca ataccaacta tagatgcaga agcatatgca attgggaaga 480  
 aagagaaacc tcccttctta ccagaggagc catcttcttc ctgagaagaa gatgatccta 540  
 tcccagatga attgttgtgt ctcatctgca aggatattat gactgatgct gttgtgattc 600  
 cctgctgtgg aaacagttac tgtgatgaat gtataagaac agcactcctg gaatcagatg 660  
 agcacacatg tccgacgtgt catcaaaatg atgtttctcc tgatgcttta attgccaata 720  
 aatttttacg acaggctgta aataacttca aaaatgaaac tggctataca aaaagactac 780  
 gaaaacagtt acctcctcca cccccccaa taccacctcc gagaccactg attcagagga 840  
 acctacaacc tctgatgaga tctccgatat caagacaaca agatcctctt atgattccag 900  
 tgacatcttc atcaactcac ccagctccgt ctatatcttc attaacttct aatcagctct 960  
 ccttggcccc tctgtgtctt ggaaatccgt ctctgtctcc agctcctgta cctgatataa 1020  
 ctgcaacagt atccatatca gttcattcag aaaaatcaga tggacctttt cgggattctg 1080  
 ataataaaat attgccagct gcagctcttg catcagagca ctcaaaggga acctcctcaa 1140  
 ttgcaattac cgctcttatg gaagagaagg gttaccagggt gcctgttctt ggaaccccat 1200  
 ctttgcttgg acagtcatta ttgcatggac agttgatccc cacaactggg ccagtaagaa 1260  
 taaatactgc tctgccaggt ggtggctgac caggctggga acattccaac aaacttggct 1320  
 atctggtttc tccaccacaa caaattagaa gaggggagag gagctgctac agaagtataa 1380  
 accgtgggag acaccacagc gaaagatcac agaggactca aggcccgta ctaccagcaa 1440  
 ctccagctct tgtacctgtt ccaccacctc ctttgtatcc gcctcctccc catacacttc 1500  
 ctctccctcc ggggtgttct cctccacagt tttctctcca gtttctctcc ggccagccac 1560  
 caccgctgg gtatagtgtc cctcctccag ggtttcctcc agctcctgcc aatttatcaa 1620  
 caccttgggt atcatcagga gtgcagacag ctcatcctaa taccatccca acaacacaag 1680  
 caccaccttt gtccagggaa gaattctata gagagcagcg acgactaaaa gaagaggaaa 1740  
 agaaaaagtc caagctagat gagtttataa atgattttgc taagggaattg atggaatata 1800  
 aaaagattca aaaggagcgt aggcgtcat tttccaggct taaatctccc tatagtgggt 1860  
 cttcgtattc aagaagttca tatacttatt cttaaataag atctgggtca acacgttcac 1920  
 gctcttattc tcatcattc agcgcctcac attctcgttc ctattcacgg tcacctccat 1980  
 accccagaag aggcagaggc aagagccgca attaccgttc acgtctagat ctcatggata 2040  
 tcatcgatct aggtcaaggt caccacctta cacagctcat cattcacgat caagatctcc 2100  
 tcaagcgttt agggggacagt ctctaataa acgtaattgta cctcaagggg aaacagaacg 2160  
 tgaatatattt aatagatata gagaagttcc accaccatat gacatgaaag catattatgg 2220

gagaagtgtt	gacttttagag	accattttga	aaaagaacgc	taccgagaat	gggagagaaa	2280
atatagagag	tggtatgaaa	aatattataa	aggttatgct	gctggagcac	ascctagacc	2340
ctcagcaaat	agagagaact	tttctccaga	gagatttttg	ccacttwaca	tcmggaattc	2400
tcccttcaca	agaggccgca	gagaagacta	tggtgggtgg	caaagtcata	gaagtcgaaa	2460
cataggtagc	aactatccag	aaaagctttc	agcaagagat	ggtcaccaatc	agaaggataa	2520
tacaaagtca	aaagagaagg	agagtgaaaa	cgctccagga	gatggtaaag	gaaataagca	2580
taagaaacac	agaaaaagaa	gaaaagggga	ggaaagttag	ggttttctga	acccagagtt	2640
attagagact	tctaggaaat	caagagaacc	tacaggtgtt	gaagaaaata	aaacagactc	2700
attgtttgtt	ctcccaagta	gagatgatgc	cacacctgtt	agagatgaac	caatggatgc	2760
agaatcaatc	actttttaat	cagtgtctga	aaaagacaag	agagaaagg	ataaaccaaa	2820
agcaaagggt	gataaaacca	aacggaagaa	tgatggatct	gctgtgtcca	aaaaagaaaa	2880
tattgtaaaa	cctgctaaag	gaccccaaga	aaaagtagat	ggagaacgtg	agagatctcc	2940
tcgatctgaa	cctccaatta	aaaaagccaa	agaggagact	ccgaagactg	acaatactaa	3000
atcatcatct	tcctctcaga	aggatgaaaa	aatcactgga	accccagaa	aagctcactc	3060
taaatcagca	aaagaacacc	aagaaacaaa	accagtcaaa	gaggaaaaag	tgaagaagga	3120
ctattccaaa	gatgtcaaat	cagaaaagct	aacaactaag	gaagaaaagg	ccaagaagcc	3180
taatgagaaa	aacaaaccac	ttgataataa	gggagaaaaa	agaaaaagaa	aaactgaaga	3240
aaaaggcgta	gataaaagatt	ttgagtcttc	ttcaatgaaa	atctcgaaac	tagaagtgc	3300
tgaaatagtg	aaaccatcac	caaagcgcaa	aatggaacct	gatactgaaa	aaatggtag	3360
gacccctgaa	aaggacaaat	ttctttaagt	gcgccaccaa	aaaaatcaaa	ctcaacagag	3420
aaactgggaa	gaaaattgga	agtacagaaa	atatatcaaa	cacaaaagaa	ccctctgaaa	3480
aattggagtc	aacatctagc	aaagttaaaa	aaaaaaaaaa	aagtcgagc		3529

<210> 1079

<211> 401

<212> DNA

<213> Homo sapiens

<400> 1079

gcggtgtttg	cattccagtt	gcgcaatcct	gtccacaatg	gccatgcctt	gttgatgcag	60
gacactcgcc	gcaggctcct	agagaggggc	tacaagcacc	cggtcctcct	actacaccct	120
ctgggagggt	ggaccaagga	tgacgatgtg	cctctagact	ggcggatgaa	gcagcacgcg	180
gctgtgctcg	aggagggggg	cctggatccc	aagtcaacca	ttgttgccat	ctttccgtct	240
cccatgttat	atgctggccc	cacagagggtc	cagtggcact	gcaggccccg	gatgattgcg	300
ggtgccaat	tctacattgt	ggggaggacc	ctgcaggaat	gccccatcct	gaaaccaaga	360
aggatctgta	tgaaccct	catggggggc	aaggcttgag	c		401